

ARIZONA EMPLOYER WAGE SURVEY

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NON-METRO AREAS

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The *Arizona Employer Wage Survey — Non-Metro Areas* (PAL-542-B) is one of two occupational wage publications produced annually by the Arizona Department of Economic Security (DES), Research Administration, in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics. The other publication is *Arizona Employer Wage Survey — Metro Areas* (PAL-542-A)

One copy of each publication is available at no cost. Call, write, or e-mail:

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Each publication can also be obtained free of charge in Adobe Acrobat (PDF) format by visiting DES, Research Administration's Web site: <http://www.de.state.az.us/links/economic/webpage/page6.html>. In addition, Microsoft Excel files for each geographic area listed can also be downloaded at the same Web site.

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Scope of Survey

The Occupational Employment Statistics (OES) wage survey is an annual mail survey measuring occupational employment and wage rates for wage and salary workers in non-farm establishments, by industry. The nationwide OES survey samples and contacts approximately 400,000 establishments each year and, over three years, contacts approximately 1.2 million establishments.

The reference period for each year's survey is the fourth quarter of that year. The nationwide response rate for the 2000 survey was 78 percent in establishment units and 70 percent in employment. While estimates can be made from a single year or two years of data, the OES survey has been designed to produce estimates using the full three years of sample (see "Estimation Methodology" section, below). The full sample allows the production of estimates at fine levels of geographical, industrial, and occupational detail. Estimates from the 2000 survey, however, are based only on two years of data because of the conversion to the Standard Occupational Classification (SOC) system in 1999. A brief description of this new classification system is provided below.

Standard Occupational Classification System

In 1999, the OES survey began using the Office of Management and Budget's occupational classification system — the Standard Occupational Classification System (SOC). The SOC system is the first OMB-required occupational classification system for federal agencies. The OES survey categorizes workers in one of about 770 detailed occupations. Together, these detailed occupations comprise 22 major occupational groups. The major occupational groups of the SOC system are shown in Table 1.

For more information about the SOC system, please see the U.S. Department of Labor, Bureau of Labor Statistics' Web site at: http://www.bls.gov/soc/soc_home.htm

Federal, State Roles in Survey

The Bureau of Labor Statistics (BLS) funds the survey and provides the procedures and technical support, while the State Employment Security Agencies (SESAs) — DES, Research Administration in Arizona — collect the data. BLS produces cross industry and two- and three-digit Standard Industrial Classification (SIC) industry estimates for the nation, states, and metropolitan statistical areas (MSAs). BLS releases all cross industry and national estimates, and the SESAs release industry estimates at the State and MSA levels.

Table 1

Major Occupational Groups of Standard Occupational Classification (SOC) System

SOC Code	Major Occupational Groups
11	Management
13	Business and Financial Operations
15	Computer and Mathematical
17	Architecture and Engineering
19	Life, Physical, and Social Science
21	Community and Social Services
23	Legal
25	Education, Training and Library
27	Arts, Design, Entertainment, Sports, and Media
29	Healthcare Practitioners and Technical
31	Healthcare Support
33	Protective Service
35	Food Preparation and Serving Related
37	Building and Grounds Cleaning and Maintenance
39	Personal Care and Service
41	Sales and Related
43	Office and Administrative Support
45	Farming, Fishing, and Forestry
47	Construction and Extraction
49	Installation, Maintenance, and Repair
51	Production
53	Transportation and Material Moving
55	Military Specific (not surveyed in OES)

Concepts

The OES survey defines employment as the number of workers who can be classified as full-time or part-time employees, including workers on paid vacations or other types of leave; workers on unpaid

short-term absences; salaried officers, executives, and staff members of incorporated firms; employees temporarily assigned to other units; and employees for whom the reporting unit is their permanent duty station regardless of whether that unit prepares their paycheck. The survey excludes the self-employed, owners/partners of unincorporated firms, and unpaid family workers. Employees are reported in the occupation in which they are working, not necessarily the occupation for which they were trained.

The OES survey currently uses the Standard Industrial Classification system to classify all establishments. An establishment is defined as an economic unit that processes goods or provides services, such as a factory, mine, or store. The establishment is generally at a single physical location and is engaged primarily in one type of economic activity. The scope of the survey includes establishments in SIC codes 07, 10, 12 to 17, 20 to 42, 44 to 65, 67, 70, 72, 73, 75, 76, 78 to 84, 86, 87, 89, and state and local government. This scope covers agricultural services; mining; construction; manufacturing; transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; services; and government workers. Data for the postal service (SIC code 43) and federal government

Table 2
Size Class of OES Survey Sample

Size Class	Number of Employees
1	1 to 4
2	5 to 9
3	10 to 19
4	20 to 49
5	50 to 99
6	100 to 249
7	250 and Above

are universe counts obtained from the Postal Service and the Office of Personnel Management, respectively.

States' Unemployment Insurance (UI) files provide the universe from which the OES survey draws its sample. The employment benchmarks are obtained from reports submitted by employers to the UI program. In some non-manufacturing industries, supplemental sources are used for establishments not reporting to the UI program. The OES survey sample is stratified by area, industry, and size class. Size classes are defined in Table 2.

UI reporting units with 250 or more employees are sampled with certainty across a three-year period. Generally, one-third of the certainty units are sampled each year in each state. There are some states that sample more than one-third of their certainty units during one survey year.

Employment is the estimate of total wage and salary employment in an occupation across the industries in which it was reported. The OES survey form sent to an establishment contains between 50 and 225 SOC occupations selected on the basis of the industry classification and size class of the sampled establishments. To reduce paperwork and respondent burden, no survey form contains every SOC occupation. Thus, data for specific occupations are collected primarily from establishments within industries that are the predominant employers of labor in these occupations. Each survey form is structured, however, to allow a respondent to provide information for each detailed occupation employed at the establishment; that is, unlisted occupations can be added to the survey form.

Wages for the OES survey are straight-time, gross pay, exclusive of premium pay. Base rate, cost-of-living allowances, guaranteed pay, hazardous-duty pay, incentive pay including commissions and production bonuses, tips, and on-call pay are included. Excluded are back pay, jury duty pay, overtime pay, severance pay, shift differentials, non-production bonuses, employer cost of supplementary benefits, and tuition reimbursements.

The OES survey collects wage data in 12 wage ranges. Employers report the number of employees in an occupation per each wage range. The wage intervals used for the 2000 survey are shown in Table 3.

Mean wage (also known as average wage) is the estimated total wages for an occupation divided by its weighted survey employment. With the exception of the upper open-ended wage interval, interval "L" (\$70.00 an hour and over), a mean wage value is calculated for each wage interval based on occupational wage data collected by the Office of Compensation and Working Conditions. The mean wage value for the upper open-ended wage interval is its lower bound, taken to be \$70 an hour. These interval mean wage values are then attributed to all workers reported in the interval. For each occupation, total weighted wages in each interval are summed across all intervals and divided by the occupation's weighted survey employment.

Many employees are paid at an hourly rate by their employers and may work less than or more than 40 hours per week. The annual wage estimates in this release are calculated by multiplying the mean hourly

wage by a “year-round, full-time” hours figure of 2,080 hours per year (52 weeks by 40 hours). Thus, the annual wage estimates may not represent the actual annual pay received by the employee if they work more or less than 2,080 hours per year.

There are workers in some occupations who are paid based on an annual amount, but generally do not work the usual 2,080 hours per year. Since the survey does not collect the actual hours worked, the hourly rate cannot be calculated with a reasonable degree of confidence from the annual wages. For this reason, the annual salary is directly calculated from reported survey data and only annual wage estimates are reported for these occupations. Occupations that typically have a work year of less than 2,080 hours include musical and entertainment occupations, pilots and flight attendants, and teachers.

For each occupation, respondents are asked to report the number of employees paid within specific wage intervals. The intervals are defined both as hourly rates and the corresponding annual rates, where the annual rates are constructed by multiplying the hourly wage rate for the interval by the typical work year of 2,080 hours. In reporting, the respondent can reference either the hourly or the annual rate, but is instructed to report the hourly rate for part-time workers.

Estimation Methodology

The nationwide OES survey samples approximately 400,000 establishments each year and, over a three-year period, contacts approximately 1.2 million establishments. Each single-year sample represents a one-third sample of both the certainty and non-certainty strata for the full three-year sample plan. While estimates can be made from a single year or two years of data, as was done for the 2000 data released here, the OES survey has been designed to produce estimates using the full three years of data. The full three-year sample allows the production of estimates at fine levels of geographical, industrial, and occupational detail, while estimates using any one year of data would be subject to a higher sampling error (due to the smaller sample size) and the limitations associated with having only one-third of the units from the certainty strata. Producing estimates using the three years of sample data provides significant sampling error reductions (particularly for small geographic areas and occupations); however, it also has some quality limitations in that it requires the adjustment of earlier years’ data to the current reference period — a procedure referred to as “wage updating.”

Table 3

Wage Intervals of 2000 OES Survey Sample

Interval	Hourly Wages	Annual Wages
Range A	Under \$6.75	Under \$14,040
Range B	\$6.75 to \$8.49	\$14,040 to \$17,679
Range C	\$8.50 to \$10.74	\$17,680 to \$22,359
Range D	\$10.75 to \$13.49	\$22,360 to \$28,079
Range E	\$13.50 to \$16.99	\$28,080 to \$35,359
Range F	\$17.00 to \$21.49	\$35,360 to \$44,719
Range G	\$21.50 to \$27.24	\$44,720 to \$56,679
Range H	\$27.25 to \$34.49	\$56,680 to \$71,759
Range I	\$34.50 to \$43.74	\$71,760 to \$90,999
Range J	\$43.75 to \$55.49	\$91,000 to \$115,439
Range K	\$55.50 to \$69.99	\$115,440 to \$145,599
Range L	\$70.00 and over	\$145,600 and over

As noted above, combining multiple years of data has both statistical advantages and limitations. Significant reductions in sampling error can be achieved by taking advantage of three years of data, which covers over 70 percent of the employment in the United States. This feature is particularly important in improving the reliability of estimates for small domains in the population (that is, wage and employment estimates for detailed occupations in small areas). Combining multiple years of data also has been necessary to obtain full coverage of the certainty strata (that is, large employers with 250 or more employment).

Starting with the 1997 estimates, the OES program has used the over-the-year fourth-quarter wage changes from the Bureau’s Employment Cost Index (ECI) to adjust prior year survey data before combining it with the current year data. The wage updating procedure assumes that each occupation’s wage, as measured in the earlier years, moves according to the

average movement of its occupational division and that there are no major geographic or detailed occupational differences — and this may not be the case. The Bureau has conducted research over the past several years on the accuracy of the ECI wage-updating method versus other modeling approaches. Current research results support the continued use of the ECI wage-updating methodology.

2000 OES Survey Estimates, Reliability

In 1999 the OES survey began using an occupational coding structure based on OMB's Standard Occupational Classification System. Therefore, 2000 OES survey estimates are based only on two years of data collected in the 1999 and 2000 survey.

The 2000 estimates use the wage-updating methodology introduced in 1997, which uses the over-the-year fourth-quarter wage changes from the Bureau's Employment Cost Index to adjust prior years' data before combining them with data from the current year. In addition, the 2000 estimates use the estimation methodology introduced in 1997, which uses a "nearest neighbor" imputation approach for non-respondents and applies employment benchmarks at a detailed MSA by three-digit industry and broad size class level.

Statistics based on establishment surveys are subject to both sampling and non-sampling error. When a sample of the population is surveyed, there is a chance that the sample estimate of a characteristic may differ from the population value of that characteristic. The difference between the sample estimate and the population value will vary depending on the particular sample selected.

Future Research

The expanded OES survey is a relatively new program, and BLS has a number of research efforts underway. Some areas of future research are:

Collection Methodology Research — This includes research on electronic collection of data from employers as an alternative to the mail questionnaire.

Estimation Methodology Research — An important research effort over the next several years will be the evaluation of the mean wage methodology for the upper open-ended interval. The identification of alternative modeling approaches may produce improved overall accuracy.

— *U.S. Dept. of Labor, Bureau of Labor Statistics*

About the Tables

The *Arizona Employer Wage Survey, Non-Metro Areas* (PAL-542-B) provides employment and wage estimates of occupations in nine rural counties of the state, plus the state as a whole.

The *Arizona Employer Wage Survey — Metro Areas* (PAL-542-A) provides employment and wage estimates of occupations in four metro areas in the state (as defined by the U.S. Department of Labor, Bureau of Labor Statistic), plus the state as a whole. The state's largest metro area, Phoenix-Mesa, includes all areas of Maricopa and Pinal counties combined. The second largest metro area is Tucson, which includes all of Pima County. The final two metro areas are Flagstaff, AZ-UT, and Yuma. The former includes Coconino County, Arizona, and Kane County, Utah. The Yuma MA consists of all of Yuma County.

Definitions

Each table breaks out data by several categories. Following are a list of categories and their definitions.

Employment — Number of part-time and full-time workers, by occupational code, who are paid a wage or salary. The survey does not cover the self-employed, owners and partners in unincorporated firms, household workers, or unpaid family workers.

Wages — Straight-time, gross pay, exclusive of premium pay. Included in the collection of wage data are: base rate, cost-of-living allowances, guaranteed pay, hazardous-duty pay, incentive pay including commissions and production bonuses, and on-call pay, and tips. Excluded from the wage data are: back pay, jury duty pay, overtime pay, severance pay, shift differentials, non-production bonuses, and tuition reimbursements.

Occupational wage estimates are either estimates of mean wages or percentiles, such as the median wage. Following are definitions of these categories:

Average (or Mean) Wage — An occupational mean wage estimate is calculated by summing the wages of all the employees in a given occupation and then dividing the total wages by the number of employees.

Median Wage — An occupational median wage estimate is the boundary between the highest paid 50 percent and the lowest paid 50 percent of workers in that occupation. Half of the workers in a given occupation earn more than the median wage, and half the workers earn less than the median wage.

Percentile Wage Estimate — Shows what percentage of workers in an occupation earn less than a given wage and what percentage earn more. For example, a

25th percentile wage of \$15.00 indicates that 25 percent of workers (in a given occupation in a given area) earn less than \$15.00; therefore 75 percent of workers earn more than \$15.00.

NA — Data not available due to lack of data or confidentiality requirements.

Other Issues

No overall total (Code 00-0000) for employment or wages is available for the state's four metro areas.

In addition, in some cases, overall totals for occupational groups (i.e., 33-0000) are not available for certain areas. Most of these instances occur with county data in the Non-Metro Area publication.

— *U.S. Dept. of Labor, Bureau of Labor Statistics
and Arizona Dept. Of Economic Security,
Research Administration*

Apache County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	13,810	13.85	6.02	7.38	11.54	17.95	25.65
11-0000	Management	700	23.91	11.35	15.35	22.84	30.47	39.11
11-1011	Chief Executives	NA	37.51	18.76	24.32	35.25	45.14	70.01
11-1021	General and Operations Managers	130	26.81	13.29	18.40	25.08	32.66	44.46
11-3011	Administrative Services Managers	50	22.70	14.94	17.21	21.41	26.83	33.61
11-3031	Financial Managers	30	23.24	10.56	18.22	21.44	27.32	36.41
11-3040	Human Resources Managers	30	21.79	13.72	17.83	21.64	25.75	30.59
11-9041	Engineering Managers	20	32.18	22.50	25.56	33.02	39.96	43.06
11-9051	Food Service Managers	40	12.48	10.25	11.25	12.29	13.32	15.91
11-9111	Medical and Health Services Managers	90	22.43	11.64	12.76	22.08	27.90	39.65
11-9121	Natural Sciences Managers	20	NA	NA	NA	NA	NA	NA
11-9131	Postmasters and Mail Superintendents	20	NA	NA	NA	NA	NA	NA
11-9151	Social and Community Service Managers	10	16.64	8.86	9.40	10.31	28.27	34.17
11-9199	Managers, All Other	50	26.27	14.89	16.90	27.60	32.77	39.56
13-0000	Business and Financial Operations	290	16.96	10.46	12.29	15.31	20.98	26.54
13-1023	Purchasing Agents, Ex. Wholesale, Retail, and Farm Products	40	20.31	13.86	15.48	20.43	25.31	27.75
13-1051	Cost Estimators	20	17.29	11.94	13.47	15.35	16.96	26.55
13-1073	Training and Development Specialists	10	19.99	11.64	12.99	20.73	24.83	28.23
13-1111	Management Analysts	20	18.74	6.03	11.20	16.66	27.30	34.64
13-1199	Business Operations Specialists, All Other	70	17.52	11.38	12.32	14.52	21.13	26.95
13-2011	Accountants and Auditors	50	15.25	10.80	12.09	14.48	17.98	21.91
15-0000	Computer and Mathematical	80	22.07	13.20	16.80	20.76	27.78	32.74
15-1021	Computer Programmers	NA	16.95	10.99	15.07	18.14	19.82	20.83
15-1041	Computer Support Specialists	20	16.48	11.89	13.03	16.04	19.69	21.77
15-1051	Computer Systems Analysts	20	NA	NA	NA	NA	NA	NA
17-0000	Architecture and Engineering	220	20.76	11.28	14.83	20.51	26.62	31.84
17-2051	Civil Engineers	10	24.10	17.21	20.90	24.40	27.51	32.21
17-3099	All Other Drafters, Engineering, and Mapping Technicians	70	14.45	9.74	11.16	13.49	16.53	22.09

Apache County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
19-0000	Life, Physical, and Social Science	120	18.34	10.86	13.97	18.23	23.05	26.30
19-1031	Conservation Scientists	20	NA	NA	NA	NA	NA	NA
19-3099	Social Scientists and Related Workers, All Other	10	NA	NA	NA	NA	NA	NA
19-4093	Forest and Conservation Technicians	50	NA	NA	NA	NA	NA	NA
21-0000	Community and Social Services	120	18.62	11.20	13.47	15.94	19.33	26.13
21-1021	Child, Family, and School Social Workers	60	20.30	9.57	13.05	15.60	18.22	40.95
25-0000	Education, Training, and Library	1,830	17.71	7.55	11.30	18.03	23.63	28.00
25-3999	All Other Teachers, Primary, Secondary, and Adult	190	42,388	19,912	27,153	32,440	37,904	85,182
25-9041	Teacher Assistants	470	19,066	12,626	14,794	18,669	23,420	26,599
27-0000	Arts, Design, Entertainment, Sports, and Media	20	17.14	11.65	14.29	16.20	20.69	25.75
29-0000	Healthcare Practitioners and Technical	660	25.02	11.76	15.70	21.93	31.42	48.26
29-1051	Pharmacists		32.61	28.19	29.52	31.71	33.90	41.10
29-1111	Registered Nurses	240	21.91	16.83	19.09	22.27	25.29	27.12
29-2052	Pharmacy Technicians	20	11.72	8.62	10.77	11.97	13.10	14.52
29-2061	Licensed Practical and Licensed Vocational Nurses	70	13.59	9.67	11.60	13.93	16.00	17.29
29-2071	Medical Records and Health Information Technicians	60	11.91	8.40	10.38	12.03	13.48	15.76
31-0000	Healthcare Support	470	9.96	7.27	8.10	9.76	11.78	13.15
31-1012	Nursing Aides, Orderlies, and Attendants	150	9.36	7.14	7.85	9.05	11.05	12.55
31-9091	Dental Assistants	NA	11.08	8.96	9.68	10.92	12.46	13.38
31-9099	Healthcare Support Workers, All Other	20	NA	NA	NA	NA	NA	NA
33-0000	Protective Service	560	10.62	6.39	7.97	10.23	12.79	15.51
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	30	14.58	9.22	9.81	10.79	17.89	23.50

Apache County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
33-3012	Correctional Officers and Jailers	70	NA	NA	NA	NA	NA	NA
33-9032	Security Guards	NA	9.30	6.05	7.24	9.29	10.89	12.80
35-0000	Food Preparation and Serving-Related	1,570	6.90	5.45	5.79	6.36	7.32	9.50
35-1011	Chefs and Head Cooks	10	12.31	7.47	8.90	11.54	14.87	17.27
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	60	9.58	7.34	8.55	9.50	10.44	12.25
35-2011	Cooks, Fast Food	80	6.62	5.43	5.86	6.57	7.56	8.16
35-2012	Cooks, Institution and Cafeteria	80	10.94	6.57	7.66	9.94	13.83	16.82
35-2015	Cooks, Short Order	NA	8.59	5.80	6.68	7.90	11.38	12.96
35-2021	Food Preparation Workers	100	6.89	5.56	5.93	6.55	7.65	9.08
35-3011	Bartenders	50	6.52	5.49	5.86	6.47	7.40	8.22
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	680	6.29	5.37	5.64	6.10	6.56	7.55
35-3031	Waiters and Waitresses	180	6.21	5.47	5.76	6.24	6.73	7.64
35-9021	Dishwashers	NA	6.11	5.48	5.75	6.21	6.67	6.99
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	30	6.46	5.49	5.84	6.43	7.23	8.12
37-0000	Building and Grounds Cleaning and Maintenance	760	7.76	5.58	6.05	6.91	8.99	11.32
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	330	8.42	5.88	6.80	8.25	10.10	11.75
37-2012	Maids and Housekeeping Cleaners	300	6.02	5.42	5.68	6.12	6.55	6.86
39-0000	Personal Care and Service	NA	8.44	5.66	6.23	7.38	9.01	12.83
41-0000	Sales and Related	1,090	9.89	5.62	6.11	6.95	11.08	19.37
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	170	10.05	5.88	6.69	8.55	11.09	18.81
41-2011	Cashiers	580	7.36	5.52	5.85	6.40	7.00	12.82
41-2031	Retail Salespersons	100	7.21	5.54	5.93	6.58	7.77	9.96

Apache County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-0000	Office and Administrative Support	2,140	11.63	6.48	8.59	11.27	14.26	16.99
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	100	16.03	9.15	12.04	15.77	19.66	24.12
43-2011	Switchboard Operators, Inc. Answering Service	10	9.09	5.79	6.41	9.57	11.76	12.80
43-3021	Billing and Posting Clerks and Machine Operators	NA	10.97	8.93	9.65	10.89	12.33	13.20
43-3031	Bookkeeping, Accounting, and Auditing Clerks	160	10.47	6.47	8.80	10.29	12.30	14.00
43-3051	Payroll and Timekeeping Clerks	30	9.46	7.38	7.87	8.69	11.05	12.76
43-4061	Eligibility Interviewers, Government Programs	80	NA	NA	NA	NA	NA	NA
43-4081	Hotel, Motel, and Resort Desk Clerks	110	6.22	5.44	5.72	6.20	6.67	7.62
43-4171	Receptionists and Information Clerks	70	7.74	6.11	7.06	7.81	8.58	9.72
43-4999	All Other Financial, Information, and Record Clerks	70	10.73	7.12	8.00	10.79	13.11	15.38
43-5051	Postal Service Clerks	20	NA	NA	NA	NA	NA	NA
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	20	NA	NA	NA	NA	NA	NA
43-5071	Shipping, Receiving, and Traffic Clerks	30	13.72	7.49	9.13	13.10	17.87	21.32
43-5081	Stock Clerks and Order Fillers	80	11.63	6.27	7.56	11.83	14.48	16.90
43-6014	Secretaries, Ex. Legal, Medical, and Executive	180	12.83	8.78	10.78	13.30	15.29	16.46
43-9021	Data Entry Keyers	30	9.18	7.44	8.34	9.23	10.12	10.65
43-9022	Word Processors and Typists	60	8.77	6.07	6.95	8.74	10.47	12.19
43-9061	Office Clerks, General	150	9.26	5.84	6.61	8.80	11.90	13.11
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	90	14.58	8.83	10.89	13.48	16.79	20.67
47-0000	Construction and Extraction	640	14.42	7.38	9.84	13.14	17.50	24.70
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	50	16.46	11.94	13.12	15.35	18.61	24.56
47-2031	Carpenters	50	14.27	9.56	10.67	12.59	16.20	22.75
47-2073	Operating Engineers and Other Construction Equipment Operators	80	20.75	13.30	17.09	22.42	25.33	27.07
47-2111	Electricians	40	24.04	16.71	18.51	21.21	31.63	34.15
47-2152	Plumbers, Pipefitters, and Steamfitters	20	13.00	10.48	11.62	12.66	13.70	17.36
47-4051	Highway Maintenance Workers	40	NA	NA	NA	NA	NA	NA

Apache County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
49-0000	Installation, Maintenance, and Repair	900	17.29	6.57	10.62	16.44	24.33	27.09
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	70	27.03	14.87	18.29	26.05	36.01	42.49
49-3023	Automotive Service Technicians and Mechanics	90	18.19	10.69	14.05	16.88	23.66	26.14
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	NA	13.66	9.35	11.17	12.84	16.69	19.82
49-9042	Maintenance and Repair Workers, General	360	13.52	6.14	8.51	10.99	18.65	24.68
51-0000	Production	670	14.99	6.36	8.12	13.68	22.42	26.03
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	50	22.27	13.71	14.98	17.20	25.58	42.13
51-4121	Welders, Cutters, Solderers, and Brazers	30	18.48	9.57	10.80	17.40	25.07	26.87
51-8013	Power Plant Operators	90	21.78	15.70	18.52	23.03	25.64	27.20
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	NA	9.58	7.64	8.70	9.58	10.46	11.89
53-0000	Transportation and Material Moving	730	12.31	6.43	8.13	11.74	15.19	19.96
53-3032	Truck Drivers, Heavy and Tractor-Trailer	90	11.49	8.80	9.65	11.13	13.06	15.14
53-3033	Truck Drivers, Light or Delivery Services	30	9.79	6.14	7.19	8.34	11.12	18.47
53-3099	Motor Vehicle Operators, All Other	80	14.33	11.08	12.66	14.42	16.05	17.26
53-7051	Industrial Truck and Tractor Operators	10	11.61	7.60	8.51	10.44	15.33	16.63
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	230	11.04	5.87	6.91	11.61	15.11	16.26
53-7064	Packers and Packagers, Hand	NA	7.86	5.52	5.92	6.58	8.32	14.69

Notes:

1 Annual wages were reported for certain full-time jobs with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.

NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Apache County (Cont.)

Cochise County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	34,300	13.58	5.94	7.23	11.30	16.64	24.91
11-0000	Management	2,020	24.63	8.30	14.25	22.35	32.32	43.46
11-1011	Chief Executives	80	43.16	18.94	28.29	40.33	62.02	70.01
11-1021	General and Operations Managers	610	24.85	10.43	14.87	20.85	32.03	43.55
11-1031	Legislators	90	8.61	5.46	5.76	6.26	6.77	19.64
11-2021	Marketing Managers	10	26.25	11.86	13.26	20.69	38.36	51.92
11-2022	Sales Managers	20	NA	NA	NA	NA	NA	NA
11-3011	Administrative Services Managers	140	16.65	6.25	10.96	14.45	21.17	31.23
11-3021	Computer and Information Systems Managers	60	39.39	20.31	25.59	39.68	52.86	63.00
11-3031	Financial Managers	90	26.64	10.00	15.20	24.52	36.61	48.18
11-3040	Human Resources Managers	50	26.05	15.49	19.07	24.77	33.60	40.17
11-3051	Industrial Production Managers	10	23.55	14.33	16.72	23.27	30.07	33.98
11-3061	Purchasing Managers	40	21.36	5.77	6.70	14.80	36.13	42.02
11-3071	Transportation, Storage, and Distribution Managers	20	22.39	9.71	19.34	24.15	27.43	31.41
11-9032	Education Administrators, Elementary and Secondary School	100	49,085	28,848	46,522	51,071	55,620	58,350
11-9041	Engineering Managers	130	31.98	18.05	22.40	33.44	40.63	47.10
11-9051	Food Service Managers	90	10.72	6.92	7.60	10.10	13.04	16.89
11-9081	Lodging Managers	20	9.20	6.97	7.31	7.87	8.43	13.03
11-9111	Medical and Health Services Managers	100	26.30	18.19	20.85	24.85	30.74	35.54
11-9121	Natural Sciences Managers	20	27.53	20.86	23.41	26.17	30.67	37.08
11-9131	Postmasters and Mail Superintendents	20	NA	NA	NA	NA	NA	NA
11-9141	Property, Real Estate, and Community Association Managers	40	13.96	6.95	7.75	9.96	22.79	25.85
11-9151	Social and Community Service Managers	40	15.05	11.83	12.95	14.52	16.15	17.28
11-9199	Managers, All Other	120	31.32	20.88	26.39	31.37	37.69	43.51
13-0000	Business and Financial Operations	1,270	19.10	9.78	12.66	17.67	24.42	31.60
13-1022	Wholesale and Retail Buyers, Ex. Farm Products	NA	10.38	8.11	9.14	10.23	11.57	12.80
13-1023	Purchasing Agents, Ex. Wholesale, Retail, and Farm Products	110	21.59	14.19	15.80	20.40	27.84	32.48
13-1041	Compliance Officers, Ex. Agriculture, Construction, Health and Safety, and Transportation	150	18.08	12.43	14.77	18.24	21.04	24.65

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
13-1071	Employment, Recruitment, and Placement Specialists	50	19.57	11.06	14.19	18.71	24.81	30.54
13-1072	Compensation, Benefits, and Job Analysis Specialists	20	20.09	12.20	13.79	18.85	24.72	31.59
13-1073	Training and Development Specialists	50	15.15	8.99	11.63	13.76	16.80	24.76
13-1111	Management Analysts	80	28.50	17.47	20.18	26.92	33.47	43.52
13-1199	Business Operations Specialists, All Other	240	22.30	13.76	16.23	21.72	28.25	32.85
13-2011	Accountants and Auditors	180	19.46	8.21	13.10	17.93	22.17	33.98
13-2031	Budget Analysts	90	23.19	15.47	18.36	22.87	26.74	33.17
13-2072	Loan Officers	40	13.10	8.52	9.67	11.89	15.18	19.47
13-2099	Financial Specialists, All Other	10	17.15	9.88	14.67	17.29	20.72	23.63
15-0000	Computer and Mathematical	1,570	19.95	9.71	12.42	16.17	28.05	34.62
15-1021	Computer Programmers	80	23.63	11.08	13.16	23.38	32.24	35.86
15-1031	Computer Software Engineers, Applications	50	28.55	18.28	22.37	29.83	34.27	39.96
15-1032	Computer Software Engineers, Systems Software	100	22.58	13.68	15.43	20.43	29.42	34.41
15-1041	Computer Support Specialists	NA	13.40	9.19	10.18	13.61	15.63	16.84
15-1051	Computer Systems Analysts	240	27.98	17.67	22.41	28.60	33.78	39.36
15-1061	Database Administrators	NA	28.89	12.67	22.77	26.40	37.39	46.51
15-1071	Network and Computer Systems Administrators	NA	27.40	15.54	23.01	30.48	33.16	34.79
15-2031	Operations Research Analysts	20	30.75	20.21	26.08	31.78	37.59	41.29
17-0000	Architecture and Engineering	1,070	26.36	13.60	16.46	23.93	32.65	41.59
17-2061	Computer Hardware Engineers	90	27.87	15.32	20.71	29.53	33.61	39.84
17-2071	Electrical Engineers	20	29.11	23.15	25.42	28.34	33.06	38.47
17-2072	Electronics Engineers, Ex. Computer	270	32.04	22.54	28.08	32.36	37.88	42.03
17-2081	Environmental Engineers	10	24.64	15.62	18.15	21.62	32.26	39.56
17-2141	Mechanical Engineers	10	32.14	19.41	28.67	34.29	39.03	41.86
17-3011	Architectural and Civil Drafters	NA	18.22	14.18	17.45	18.89	20.31	21.16
17-3022	Civil Engineering Technicians	30	15.05	10.98	11.83	13.22	17.65	20.57
17-3023	Electrical and Electronic Engineering Technicians	270	16.89	11.16	14.36	16.02	18.14	24.44
17-3031	Surveying and Mapping Technicians	NA	14.33	9.54	10.90	12.71	15.98	24.14
17-3099	All Other Drafters, Engineering, and Mapping Technicians	NA	24.22	20.32	23.23	24.99	26.75	27.83

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
19-0000	Life, Physical, and Social Science	230	21.64	12.98	15.48	20.69	27.14	32.69
19-3031	Clinical, Counseling, and School Psychologists	70	20.35	14.24	15.80	18.99	23.13	27.25
19-3099	Social Scientists and Related Workers, All Other	50	NA	NA	NA	NA	NA	NA
19-4093	Forest and Conservation Technicians	20	NA	NA	NA	NA	NA	NA
21-0000	Community and Social Services	380	12.72	7.76	10.26	12.49	15.20	18.03
21-1012	Educational, Vocational, and School Counselors	60	16.82	13.77	14.77	16.32	19.21	21.45
21-1021	Child, Family, and School Social Workers	170	11.46	7.43	8.44	11.78	13.05	15.37
21-1093	Social and Human Service Assistants	60	11.24	7.30	8.52	10.81	13.80	16.38
23-0000	Legal	80	22.76	10.55	15.08	22.72	30.75	35.54
23-1023	Judges, Magistrate Judges, and Magistrates	10	10.24	5.87	6.64	11.50	13.33	15.27
23-9099	All Other Legal and Related Workers	20	NA	NA	NA	NA	NA	NA
25-0000	Education, Training, and Library	2,850	13.24	6.66	9.81	12.76	16.67	20.39
25-1194	Vocational Education Teachers, Postsecondary	80	23.40	18.01	20.84	23.72	26.29	29.89
25-2011	Preschool Teachers, Ex. Special Education	NA	7.69	5.46	5.92	6.69	8.06	12.91
25-2012	Kindergarten Teachers, Ex. Special Education	90	26,446	12,431	14,329	26,478	35,024	41,707
25-2021	Elementary School Teachers, Ex. Special Education	820	30,658	23,352	25,368	28,763	36,259	42,446
25-2022	Middle School Teachers, Ex. Special and Vocational Education	350	33,169	24,203	27,366	32,835	39,439	43,744
25-2031	Secondary School Teachers, Ex. Special and Vocational Education	240	31,354	23,983	26,245	30,407	35,566	42,032
25-2032	Vocational Education Teachers, Secondary School	50	32,726	26,211	29,128	32,234	35,341	41,707
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	130	30,607	23,737	25,222	27,698	37,459	42,952
25-2042	Special Education Teachers, Middle School	50	33,665	24,658	27,447	33,439	40,116	44,016
25-2043	Special Education Teachers, Secondary School	NA	30,525	23,522	24,958	27,350	35,146	43,132
25-3999	All Other Teachers, Primary, Secondary, and Adult	NA	22,037	18,835	19,607	20,893	22,179	23,050
25-4021	Librarians	50	16.88	12.37	14.77	17.10	19.62	21.27
25-4031	Library Technicians	90	9.85	6.33	8.26	9.90	11.61	13.16
25-9041	Teacher Assistants	470	15,687	11,800	12,728	14,259	17,853	22,878

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
27-0000	Arts, Design, Entertainment, Sports, and Media	320	18.87	8.49	10.07	17.18	26.18	33.14
27-1023	Floral Designers	NA	9.69	8.75	9.19	9.82	10.45	10.88
27-1024	Graphic Designers	10	11.82	8.92	9.55	10.60	14.62	16.05
27-3020	News Analysts, Reporters and Correspondents	20	9.18	7.51	8.35	9.17	10.13	10.70
27-3031	Public Relations Specialists	20	24.83	13.83	18.58	23.97	29.66	39.73
27-3041	Editors	20	12.11	7.74	9.20	10.81	15.39	17.44
27-3042	Technical Writers	60	23.56	15.82	20.09	23.80	26.67	31.87
27-4099	Media and Communication Equipment Workers, All Other	80	NA	NA	NA	NA	NA	NA
29-0000	Healthcare Practitioners and Technical	2,040	20.15	9.55	13.60	17.55	23.16	32.06
29-1051	Pharmacists	60	32.52	28.15	29.70	32.25	35.44	40.48
29-1062	Family and General Practitioners	30	58.67	45.63	52.00	62.09	70.00	70.01
29-1069	Physicians and Surgeons, All Other	20	NA	NA	NA	NA	NA	NA
29-1071	Physician Assistants	40	37.16	27.21	29.16	32.34	40.27	62.78
29-1111	Registered Nurses	700	18.54	14.43	16.04	18.45	20.80	23.83
29-1122	Occupational Therapists	10	26.86	17.36	19.66	25.60	34.85	39.65
29-1123	Physical Therapists	20	29.59	24.95	27.85	30.28	32.70	34.14
29-1126	Respiratory Therapists	20	15.34	13.04	14.16	15.38	16.60	17.70
29-1127	Speech-Language Pathologists	30	27.89	13.45	16.99	20.23	34.51	57.85
29-2011	Medical and Clinical Laboratory Technologists	30	19.25	12.34	14.05	20.01	23.50	25.81
29-2012	Medical and Clinical Laboratory Technicians	40	9.45	6.70	8.63	9.69	10.66	12.04
29-2032	Diagnostic Medical Sonographers	NA	24.17	21.31	22.56	24.39	26.23	27.85
29-2034	Radiologic Technologists and Technicians	NA	24.57	16.69	19.06	25.39	30.76	33.25
29-2051	Dietetic Technicians	NA	9.14	5.97	6.93	8.62	10.57	14.09
29-2052	Pharmacy Technicians	40	9.66	7.09	7.56	8.34	12.03	13.43
29-2055	Surgical Technologists	NA	14.52	11.42	12.38	14.17	16.42	19.01
29-2061	Licensed Practical and Licensed Vocational Nurses	260	13.63	11.20	12.15	13.70	15.38	16.44
29-2071	Medical Records and Health Information Technicians	130	8.80	6.25	7.39	8.75	9.95	10.68
29-9199	All Other Health Professionals and Technicians	NA	16.41	9.83	14.92	17.70	19.60	20.74

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
31-0000	Healthcare Support	910	8.97	6.17	7.24	8.54	10.90	12.54
31-1012	Nursing Aides, Orderlies, and Attendants	310	7.73	5.74	6.48	7.76	8.99	10.16
31-9091	Dental Assistants	20	12.59	9.34	10.61	12.68	14.81	16.13
31-9092	Medical Assistants	240	10.25	7.88	9.06	10.33	11.85	12.84
31-9094	Medical Transcriptionists	20	9.55	7.06	7.53	8.31	11.94	12.88
31-9095	Pharmacy Aides	NA	7.15	5.37	5.70	6.25	7.48	11.39
31-9099	Healthcare Support Workers, All Other	20	8.35	5.49	5.99	6.94	10.65	14.17
33-0000	Protective Service	2,150	15.59	10.09	12.74	15.33	18.20	21.17
33-1012	First-Line Supervisors/Managers of Police and Detectives	130	24.73	18.65	21.42	24.34	28.02	32.72
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	NA	17.04	5.96	6.89	19.42	21.39	24.32
33-2011	Fire Fighters	230	11.84	6.64	9.18	10.48	15.04	16.65
33-3021	Detectives and Criminal Investigators	60	19.91	14.34	15.65	18.24	23.57	29.95
33-3051	Police and Sheriff's Patrol Officers	980	16.75	13.80	14.80	16.46	18.94	20.73
33-9011	Animal Control Workers	10	9.87	5.95	6.85	11.01	12.56	13.43
33-9032	Security Guards	90	9.41	6.75	7.61	9.09	10.62	12.94
33-9099	Protective Service Workers, All Other	20	12.96	5.76	6.38	12.11	18.78	20.86
35-0000	Food Preparation and Serving-Related	2,190	6.78	5.41	5.75	6.32	7.32	9.30
35-1011	Chefs and Head Cooks	30	10.70	6.69	7.51	10.13	13.17	16.77
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	110	8.98	5.83	6.82	8.19	11.32	13.22
35-2011	Cooks, Fast Food	170	6.06	5.34	5.62	6.07	6.53	7.19
35-2012	Cooks, Institution and Cafeteria	320	8.43	5.75	6.46	8.62	10.17	11.75
35-2014	Cooks, Restaurant	80	7.33	5.64	6.22	7.22	8.26	9.46
35-2021	Food Preparation Workers	190	6.75	5.44	5.79	6.36	7.39	8.95
35-3011	Bartenders	80	5.82	5.31	5.55	5.95	6.35	6.59
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	410	6.06	5.35	5.63	6.09	6.54	7.16
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	NA	7.61	6.88	7.17	7.64	8.11	8.39

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
35-3031	Waiters and Waitresses	210	6.08	5.35	5.63	6.08	6.54	7.20
35-3041	Food Servers, Non-restaurant	280	5.95	5.33	5.59	6.01	6.44	6.70
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	80	6.62	5.45	5.84	6.48	7.44	8.27
35-9021	Dishwashers	90	5.92	5.34	5.60	6.02	6.44	6.69
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	40	5.92	5.35	5.60	6.02	6.44	6.69
37-0000	Building and Grounds Cleaning and Maintenance	1,470	7.48	5.53	5.94	6.61	8.43	10.69
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	80	10.82	6.63	8.46	9.70	10.93	19.62
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	20	12.96	7.94	8.89	10.09	18.44	21.21
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	540	7.42	5.59	6.01	6.70	8.80	10.80
37-2012	Maids and Housekeeping Cleaners	500	6.17	5.39	5.68	6.16	6.64	7.49
37-3011	Landscaping and Groundskeeping Workers	300	8.33	5.69	6.29	7.64	9.84	12.31
37-9099	All Other Building and Grounds Cleaning and Maintenance Workers	NA	8.84	5.58	6.07	7.04	8.73	13.25
39-0000	Personal Care and Service	500	8.65	5.75	6.45	7.77	9.85	12.85
39-2021	Non-farm Animal Caretakers	10	7.87	5.65	6.07	6.78	10.09	11.38
39-3091	Amusement and Recreation Attendants	270	8.73	5.89	6.88	7.88	8.80	12.52
39-5012	Hairdressers, Hairstylists, and Cosmetologists	70	6.31	5.43	5.71	6.18	6.65	7.65
39-6021	Tour Guides and Escorts	NA	8.88	6.02	8.59	9.57	10.34	10.81
39-9032	Recreation Workers	40	11.37	6.59	8.64	11.50	14.57	16.20
41-0000	Sales and Related	3,220	9.69	5.61	6.15	7.54	12.26	16.23
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	240	12.84	6.44	7.97	10.55	14.36	20.60
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	20	18.93	11.19	13.06	19.08	23.96	26.55

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
41-2011	Cashiers	1,500	8.42	5.51	5.94	6.67	10.97	14.50
41-2021	Counter and Rental Clerks	70	9.14	5.61	6.14	7.71	12.34	14.75
41-2022	Parts Salespersons	NA	10.22	7.01	7.70	9.14	13.88	15.75
41-2031	Retail Salespersons	930	8.44	5.61	6.07	6.84	9.19	12.69
41-3011	Advertising Sales Agents	20	10.66	6.21	7.15	8.17	17.02	19.71
41-3041	Travel Agents	70	8.60	5.83	6.61	7.75	8.74	14.99
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	20	22.79	8.33	15.27	22.98	27.22	38.85
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products	200	14.56	6.62	13.71	15.32	16.80	20.08
41-9099	Sales and Related Workers, All Other	30	18.68	8.32	9.90	17.38	20.63	33.36
43-0000	Office and Administrative Support	5,380	10.87	6.02	7.26	9.66	13.10	17.02
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	460	15.78	9.10	10.99	13.59	18.99	24.97
43-2011	Switchboard Operators, Inc. Answering Service	NA	7.04	5.50	5.99	6.83	8.04	9.34
43-3011	Bill and Account Collectors	80	8.93	6.91	7.64	8.78	10.04	10.88
43-3021	Billing and Posting Clerks and Machine Operators	120	9.46	6.13	7.55	9.43	11.03	13.09
43-3031	Bookkeeping, Accounting, and Auditing Clerks	320	10.98	7.29	8.99	10.72	12.99	15.31
43-3051	Payroll and Timekeeping Clerks	70	11.34	7.09	9.44	11.46	13.40	15.46
43-3061	Procurement Clerks	50	14.07	11.09	12.39	14.32	16.00	17.02
43-4031	Court, Municipal, and License Clerks	60	11.38	8.59	9.27	10.47	12.76	15.18
43-4051	Customer Service Representatives	220	9.72	6.34	7.40	8.82	10.76	15.47
43-4071	File Clerks	30	8.75	5.92	6.80	7.98	9.93	14.48
43-4081	Hotel, Motel, and Resort Desk Clerks	210	6.20	5.41	5.70	6.19	6.69	7.55
43-4111	Interviewers, Ex. Eligibility and Loan	40	8.53	7.03	7.41	8.04	9.18	11.37
43-4121	Library Assistants, Clerical	40	7.33	5.72	6.23	7.10	8.27	9.58
43-4151	Order Clerks	70	7.85	5.86	7.11	7.88	8.65	10.17
43-4161	Human Resources Assistants, Ex. Payroll and Timekeeping	100	12.59	9.13	11.09	12.60	14.59	16.34
43-4171	Receptionists and Information Clerks	250	7.46	5.68	6.32	7.31	8.30	9.89
43-4999	All Other Financial, Information, and Record Clerks	30	18.90	10.81	12.92	16.64	25.65	30.62
43-5011	Cargo and Freight Agents	30	9.20	6.70	7.12	7.76	8.40	16.76

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-5031	Police, Fire, and Ambulance Dispatchers	90	10.34	8.73	9.25	10.04	10.95	13.15
43-5032	Dispatchers, Ex. Police, Fire, and Ambulance	10	11.70	7.50	8.80	10.11	15.64	18.88
43-5041	Meter Readers, Utilities	70	10.92	5.79	6.58	11.47	13.76	16.55
43-5052	Postal Service Mail Carriers	100	NA	NA	NA	NA	NA	NA
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	20	NA	NA	NA	NA	NA	NA
43-5061	Production, Planning, and Expediting Clerks	20	10.76	6.87	7.59	9.01	12.33	18.80
43-5071	Shipping, Receiving, and Traffic Clerks	170	8.05	5.74	6.33	7.35	8.84	11.12
43-5081	Stock Clerks and Order Fillers	530	8.25	5.45	5.85	6.53	9.81	14.67
43-6011	Executive Secretaries and Administrative Assistants	260	12.36	8.90	10.27	12.02	13.76	16.40
43-6013	Medical Secretaries		11.19	7.42	8.17	9.49	14.74	18.54
43-6014	Secretaries, Ex. Legal, Medical, and Executive	490	11.09	7.28	8.71	10.36	13.42	16.31
43-9011	Computer Operators	70	8.72	7.28	7.64	8.23	8.83	11.03
43-9021	Data Entry Keyers	70	10.52	7.06	7.79	9.57	13.34	15.93
43-9022	Word Processors and Typists	80	9.62	6.11	7.04	9.09	11.44	13.29
43-9051	Mail Clerks and Mail Machine Operators, Ex. Postal Service	30	8.47	5.73	6.27	7.27	11.29	12.85
43-9061	Office Clerks, General	510	9.30	5.93	6.89	8.39	11.06	13.93
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	280	19.37	8.85	12.98	16.02	27.81	34.23
45-0000	Farming, Fishing, and Forestry	820	6.65	5.48	5.79	6.31	6.85	9.61
45-2011	Agricultural Inspectors	10	NA	NA	NA	NA	NA	NA
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	770	6.58	5.53	5.83	6.34	6.87	9.40
47-0000	Construction and Extraction	1,590	11.92	6.93	8.55	11.32	14.17	18.36
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	200	18.58	12.08	14.64	18.28	20.89	27.20
47-2021	Brickmasons and Blockmasons	50	12.56	11.28	11.79	12.64	13.49	13.98
47-2031	Carpenters	270	10.87	7.50	8.64	10.45	12.78	15.32
47-2051	Cement Masons and Concrete Finishers	60	13.64	10.95	11.87	13.30	15.69	17.27
47-2061	Construction Laborers	200	8.97	5.85	6.77	8.04	9.99	13.26
47-2071	Paving, Surfacing, and Tamping Equipment Operators	NA	13.73	11.63	12.33	13.49	15.31	16.71

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
47-2073	Operating Engineers and Other Construction Equipment Operators	150	12.77	9.32	10.38	12.23	14.51	16.94
47-2111	Electricians	30	15.48	11.02	12.30	14.72	17.71	23.12
47-2141	Painters, Construction and Maintenance	70	10.43	7.25	8.06	9.46	11.50	16.30
47-2152	Plumbers, Pipefitters, and Steamfitters	30	14.28	9.75	11.14	14.83	16.71	18.57
47-4011	Construction and Building Inspectors	10	13.55	6.00	6.98	15.08	16.86	19.01
47-4051	Highway Maintenance Workers	100	11.37	6.62	9.30	10.93	13.25	16.64
47-4999	All Other Construction Trades and Related Workers	NA	13.90	8.11	10.31	14.65	16.95	19.51
49-0000	Installation, Maintenance, and Repair	1,100	15.04	8.42	10.61	13.64	19.26	24.63
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	60	21.42	13.46	15.62	21.24	26.18	31.62
49-2011	Computer, Automated Teller, and Office Machine Repairers	NA	11.66	7.96	9.55	11.80	13.26	15.18
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	NA	18.44	12.13	14.38	18.09	21.28	25.18
49-3023	Automotive Service Technicians and Mechanics	110	14.42	8.00	11.21	14.36	17.32	20.80
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	80	13.67	9.37	11.22	13.30	16.20	19.29
49-3042	Mobile Heavy Equipment Mechanics, Ex. Engines	30	14.72	11.17	11.95	13.25	18.17	20.17
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	20	15.46	12.91	14.32	15.57	16.82	17.65
49-9042	Maintenance and Repair Workers, General	290	11.42	6.67	8.90	11.26	13.35	16.39
49-9043	Maintenance Workers, Machinery	10	13.71	10.85	11.73	12.78	13.83	20.04
49-9051	Electrical Power-Line Installers and Repairers	NA	22.88	18.23	20.66	23.65	25.99	27.41
49-9099	Installation, Maintenance, and Repair Workers, All Other	30	15.81	11.32	12.98	15.85	19.01	20.75
51-0000	Production	900	11.47	5.85	6.88	9.78	14.48	19.79
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	70	17.14	11.10	13.10	17.74	20.23	22.04
51-3011	Bakers	30	8.50	5.49	5.92	6.65	11.87	12.85
51-3021	Butchers and Meat Cutters	90	13.17	5.93	7.10	15.12	18.72	20.39
51-4121	Welders, Cutters, Solderers, and Brazers	40	13.52	9.26	11.36	14.49	16.06	17.00

Cochise County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
51-6011	Laundry and Dry-Cleaning Workers	NA	6.62	5.53	5.87	6.44	7.22	8.73
51-6021	Pressers, Textile, Garment, and Related Materials	40	6.15	5.36	5.65	6.13	6.61	7.66
51-6031	Sewing Machine Operators	10	6.96	5.72	6.33	7.12	7.86	8.30
51-8031	Water and Liquid Waste Treatment Plant and System Operators	50	13.05	9.80	11.29	12.54	14.54	17.64
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	30	10.90	7.12	8.56	10.65	13.22	15.85
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	30	15.07	7.04	9.87	15.31	18.07	24.01
51-9198	Helpers - Production Workers	40	6.53	5.48	5.80	6.33	6.97	8.64
53-0000	Transportation and Material Moving	2,250	10.97	5.75	6.53	9.46	12.92	22.18
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	30	15.51	9.35	11.45	16.42	19.61	21.13
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle	30	21.12	8.17	12.29	17.41	31.59	39.67
53-3022	Bus Drivers, School	220	9.15	6.39	8.17	9.51	10.47	11.11
53-3031	Driver/Sales Workers	NA	7.11	5.39	5.75	6.35	7.80	11.36
53-3032	Truck Drivers, Heavy and Tractor-Trailer	NA	13.02	10.89	11.50	12.48	13.46	16.31
53-3033	Truck Drivers, Light or Delivery Services	300	19.59	7.49	12.27	23.20	25.23	26.44
53-3099	Motor Vehicle Operators, All Other	NA	7.03	5.34	5.63	6.11	6.58	14.38
53-7021	Crane and Tower Operators	NA	13.04	7.69	8.73	13.47	16.20	17.59
53-7051	Industrial Truck and Tractor Operators	60	10.61	7.05	8.14	9.70	11.90	13.68
53-7061	Cleaners of Vehicles and Equipment	NA	6.72	5.62	6.03	6.73	7.71	8.39
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	350	8.78	5.81	6.65	7.94	11.48	12.83
53-7064	Packers and Packagers, Hand	360	7.49	5.43	5.77	6.34	7.54	13.68
53-7081	Refuse and Recyclable Material Collectors	50	13.28	10.86	11.64	12.84	14.70	16.59

Notes:

1 Annual wages were reported for certain full-time jobs with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.

NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Gila County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	12,940	11.97	6.00	7.21	10.12	14.65	20.40
11-0000	Management	680	24.40	13.04	16.88	23.32	28.05	38.13
11-1011	Chief Executives	NA	39.23	18.44	33.17	39.76	49.49	57.54
11-1021	General and Operations Managers	180	25.87	11.48	15.90	23.64	31.43	43.17
11-2022	Sales Managers	40	19.13	14.31	15.06	16.33	19.05	32.29
11-3011	Administrative Services Managers	30	18.60	9.88	12.88	19.60	24.39	26.48
11-3031	Financial Managers	30	24.05	13.75	15.35	19.75	31.88	36.97
11-3040	Human Resources Managers	10	23.98	13.22	16.76	21.78	32.28	39.29
11-9032	Education Administrators, Elementary and Secondary School	40	51,943	41,950	47,024	51,758	56,492	66,077
11-9041	Engineering Managers	NA	26.98	18.31	19.34	21.05	31.23	50.11
11-9051	Food Service Managers	20	14.10	7.67	13.70	15.01	16.26	17.03
11-9111	Medical and Health Services Managers	10	31.51	22.34	25.41	29.82	33.75	45.90
11-9131	Postmasters and Mail Superintendents	10	NA	NA	NA	NA	NA	NA
11-9199	Managers, All Other	40	29.25	16.25	20.27	27.87	36.85	45.06
13-0000	Business and Financial Operations	160	17.58	9.57	11.57	15.08	20.75	30.20
13-1199	Business Operations Specialists, All Other	50	23.54	11.82	13.33	22.86	30.05	39.76
13-2011	Accountants and Auditors	NA	15.30	6.31	11.99	15.07	18.74	21.32
17-3031	Surveying and Mapping Technicians	20	11.17	8.27	9.76	11.74	12.89	13.58
19-0000	Life, Physical, and Social Science	150	17.35	9.61	11.52	16.38	21.78	26.90
19-4093	Forest and Conservation Technicians	70	NA	NA	NA	NA	NA	NA
21-0000	Community and Social Services	220	12.11	7.30	8.31	10.39	15.35	19.92
21-1012	Educational, Vocational, and School Counselors	20	17.76	14.41	15.63	17.79	19.96	21.27
21-1021	Child, Family, and School Social Workers	NA	11.12	7.04	8.22	11.04	13.01	16.03
21-1093	Social and Human Service Assistants	NA	9.66	8.74	9.09	9.69	10.28	10.64
25-0000	Education, Training, and Library	1,220	12.50	6.03	7.61	12.75	16.14	19.48
25-2021	Elementary School Teachers, Ex. Special Education	260	31,695	23,853	26,677	31,482	36,337	41,816

Gila County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
25-2022	Middle School Teachers, Ex. Special and Vocational Education	190	29,486	23,220	24,748	27,273	33,917	40,675
25-2031	Secondary School Teachers, Ex. Special and Vocational Education	190	31,722	24,594	28,792	31,798	34,780	40,197
25-3999	All Other Teachers, Primary, Secondary, and Adult	60	36,254	18,831	20,556	42,138	50,701	54,546
25-4021	Librarians	20	15.55	11.85	13.50	15.35	17.40	20.25
25-9041	Teacher Assistants	350	13,989	11,367	12,173	13,517	15,536	17,217
27-0000	Arts, Design, Entertainment, Sports, and Media	NA	8.95	5.69	6.44	9.00	10.20	12.18
29-0000	Healthcare Practitioners and Technical	490	20.87	9.12	12.61	17.19	24.58	37.84
29-1051	Pharmacists	NA	19.82	11.97	13.13	15.32	28.87	38.61
29-1062	Family and General Practitioners	20	50.72	36.91	40.53	49.51	57.85	72.97
29-2034	Radiologic Technologists and Technicians	40	21.50	11.62	14.90	19.89	30.23	32.79
29-2052	Pharmacy Technicians	NA	8.13	7.25	7.58	8.12	8.65	9.52
29-2071	Medical Records and Health Information Technicians	20	11.06	7.03	9.01	10.20	13.28	16.27
31-0000	Healthcare Support	160	9.51	6.22	8.36	9.64	10.92	12.69
31-9092	Medical Assistants	60	9.53	6.01	8.77	9.81	11.01	12.50
31-9099	Healthcare Support Workers, All Other	10	10.53	8.83	9.31	10.13	11.44	13.23
33-0000	Protective Service	230	11.75	7.34	8.56	10.79	13.08	17.48
33-3012	Correctional Officers and Jailers	70	NA	NA	NA	NA	NA	NA
33-9032	Security Guards	110	9.42	6.95	7.58	8.74	10.56	12.92
35-0000	Food Preparation and Serving-Related	1,070	6.72	5.44	5.78	6.36	7.18	8.33
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	50	10.58	6.77	7.54	9.33	14.34	16.10
35-2011	Cooks, Fast Food	130	6.76	5.48	5.98	6.81	7.70	8.21
35-2012	Cooks, Institution and Cafeteria	50	8.46	5.77	6.40	7.42	8.94	13.91
35-2014	Cooks, Restaurant	30	8.53	6.97	7.45	8.24	9.62	10.69

Gila County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
35-2015	Cooks, Short Order	20	7.93	7.15	7.45	7.95	8.45	8.79
35-2021	Food Preparation Workers	80	6.42	5.46	5.79	6.35	6.97	7.95
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	NA	6.17	5.37	5.65	6.12	6.59	7.34
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	30	7.15	5.76	6.39	7.07	7.86	8.33
35-3031	Waiters and Waitresses	210	5.96	5.37	5.62	6.05	6.47	6.73
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	30	5.87	5.37	5.61	6.02	6.42	6.66
35-9021	Dishwashers	50	6.65	5.47	5.85	6.49	7.39	8.22
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	30	6.87	5.60	6.17	6.99	7.75	8.21
37-0000	Building and Grounds Cleaning and Maintenance	940	8.11	5.66	6.40	7.65	9.19	10.50
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	NA	11.04	8.47	10.06	11.46	12.51	13.13
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	480	8.39	6.84	7.35	8.18	9.44	10.36
37-2012	Maids and Housekeeping Cleaners	320	6.19	5.35	5.65	6.13	6.61	7.62
37-3011	Landscaping and Groundskeeping Workers	110	11.47	7.13	8.10	9.47	11.44	23.46
39-0000	Personal Care and Service	660	9.54	6.04	7.08	8.14	10.51	15.80
39-3091	Amusement and Recreation Attendants	NA	8.87	5.66	6.41	7.30	8.04	8.49
39-9032	Recreation Workers	NA	6.70	5.39	5.74	6.32	7.19	8.23
41-0000	Sales and Related	1,410	9.54	5.82	6.74	8.98	10.57	13.90
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	NA	11.08	6.12	7.17	8.40	14.34	16.58
41-2011	Cashiers	720	8.26	5.63	6.32	8.30	10.06	10.90
41-2031	Retail Salespersons	180	9.15	5.69	6.24	7.21	9.05	16.58
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products	80	11.36	7.75	9.22	10.85	12.87	15.50

Gila County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-0000	Office and Administrative Support	1,770	10.30	6.13	7.35	10.10	12.50	14.70
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	80	14.49	9.42	11.44	13.26	17.80	21.23
43-2011	Switchboard Operators, Inc. Answering Service	20	8.41	6.04	7.04	8.91	9.83	10.38
43-3021	Billing and Posting Clerks and Machine Operators	30	9.67	6.88	8.64	9.58	10.50	12.99
43-3031	Bookkeeping, Accounting, and Auditing Clerks	NA	11.66	9.16	11.07	11.94	12.80	13.32
43-3051	Payroll and Timekeeping Clerks	10	13.33	9.86	11.05	12.57	15.12	18.90
43-4051	Customer Service Representatives	NA	10.84	7.39	8.14	9.40	12.34	18.08
43-4061	Eligibility Interviewers, Government Programs	40	NA	NA	NA	NA	NA	NA
43-4071	File Clerks	20	6.92	5.67	6.12	6.86	7.96	8.67
43-4171	Receptionists and Information Clerks	140	8.18	6.36	7.16	7.96	9.06	10.40
43-5051	Postal Service Clerks	20	NA	NA	NA	NA	NA	NA
43-5052	Postal Service Mail Carriers	30	NA	NA	NA	NA	NA	NA
43-5071	Shipping, Receiving, and Traffic Clerks	40	8.32	5.51	6.04	7.51	10.83	12.81
43-5081	Stock Clerks and Order Fillers	NA	7.43	5.57	5.88	6.38	6.89	13.80
43-6011	Executive Secretaries and Administrative Assistants	130	11.62	8.73	9.98	11.66	13.06	15.04
43-6013	Medical Secretaries	10	9.81	7.36	8.29	9.42	10.41	14.56
43-6014	Secretaries, Ex. Legal, Medical, and Executive	140	9.29	7.16	7.74	8.72	10.39	12.96
43-9022	Word Processors and Typists	20	8.78	6.76	7.44	8.75	10.08	11.31
43-9061	Office Clerks, General	110	9.46	6.32	7.24	8.40	10.51	14.19
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	40	14.98	9.03	11.42	14.31	17.96	21.61
47-0000	Construction and Extraction	1,530	13.23	7.95	9.78	12.69	16.34	19.61
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	250	18.83	15.31	17.31	18.84	20.38	21.30
47-2031	Carpenters	200	15.22	13.60	14.23	15.27	16.31	16.93
47-2061	Construction Laborers	NA	10.74	8.06	9.14	10.58	12.35	13.43
47-2073	Operating Engineers and Other Construction Equipment Operators	100	14.61	9.19	11.11	13.83	17.32	22.20
47-2111	Electricians	60	15.41	10.57	12.45	15.25	18.70	20.69
47-2141	Painters, Construction and Maintenance	60	12.14	10.11	11.14	12.10	13.07	14.98
47-2152	Plumbers, Pipefitters, and Steamfitters	NA	16.48	10.74	13.62	15.83	19.15	24.64
47-4051	Highway Maintenance Workers	30						

Gila County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
49-0000	Installation, Maintenance, and Repair	500	13.46	6.04	8.97	13.14	16.77	21.79
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	30	17.39	13.06	14.68	16.39	19.68	24.39
49-3023	Automotive Service Technicians and Mechanics	80	14.61	9.33	12.24	14.71	16.31	20.88
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	10	11.22	6.71	9.68	11.80	13.18	14.12
49-3042	Mobile Heavy Equipment Mechanics, Ex. Engines	10	19.44	13.46	17.98	19.73	21.48	24.72
49-3093	Tire Repairers and Changers	NA	7.08	5.37	5.68	6.20	6.72	11.06
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	NA	10.91	7.09	9.12	10.48	13.14	15.75
49-9042	Maintenance and Repair Workers, General	50	11.92	6.99	8.27	11.10	15.68	18.61
49-9098	Helpers – Installation, Maintenance, and Repair Workers	NA	6.51	5.34	5.63	6.11	6.60	9.75
51-3011	Bakers	NA	10.28	6.55	9.19	10.71	12.23	13.23
53-0000	Transportation and Material Moving	710	8.02	5.65	6.16	6.98	9.59	11.71
53-3022	Bus Drivers, School	70	7.88	6.05	6.87	7.70	8.76	10.09
53-3032	Truck Drivers, Heavy and Tractor-Trailer	40	13.31	11.21	12.03	13.38	14.95	16.26
53-3033	Truck Drivers, Light or Delivery Services	NA	7.06	5.53	6.09	7.00	7.86	8.38
53-7061	Cleaners of Vehicles and Equipment	20	8.67	7.08	7.57	8.38	9.93	10.69
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	220	8.67	6.00	7.32	9.15	10.04	10.58

Notes:

1 Annual wages were reported for certain full-time jobs with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.

NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Gila County (Cont.)

Graham County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	7,020	12.13	5.95	6.99	10.50	14.71	20.59
11-0000	Management	410	23.28	10.92	16.22	21.93	28.13	37.21
11-1011	Chief Executives	30	33.00	12.11	21.63	28.77	44.29	57.90
11-1021	General and Operations Managers	140	22.33	6.72	13.17	19.61	27.60	40.49
11-3011	Administrative Services Managers	10	22.65	12.45	17.35	20.04	29.69	38.43
11-3031	Financial Managers	20	25.56	16.91	19.35	23.95	30.56	38.11
11-9051	Food Service Managers	NA	19.81	17.83	18.60	19.89	21.17	21.94
11-9111	Medical and Health Services Managers	20	26.08	9.76	21.85	29.45	32.35	34.09
13-0000	Business and Financial Operations	110	15.27	8.81	11.99	14.80	18.52	22.87
13-1111	Management Analysts	NA	14.25	5.51	6.04	14.37	19.99	29.67
13-1199	Business Operations Specialists, All Other	20	16.09	11.37	12.30	14.67	19.81	23.80
13-2011	Accountants and Auditors	20	14.69	11.50	12.51	14.13	17.57	19.93
15-0000	Computer and Mathematical	30	23.35	12.17	13.75	18.60	21.51	70.00
15-1071	Network and Computer Systems Administrators	10	16.96	12.01	13.22	16.33	20.29	23.27
17-0000	Architecture and Engineering	40	17.97	11.15	12.74	16.15	24.18	27.18
17-2051	Civil Engineers	10	25.75	22.52	23.67	25.58	27.71	31.48
17-3022	Civil Engineering Technicians	NA	14.17	11.28	12.08	13.40	16.11	17.56
19-3099	Social Scientists and Related Workers, All Other	10	NA	NA	NA	NA	NA	NA
19-4093	Forest and Conservation Technicians	10	NA	NA	NA	NA	NA	NA
21-0000	Community and Social Services	NA	10.76	6.51	8.90	9.84	10.97	17.88
21-1021	Child, Family, and School Social Workers	50	11.47	5.72	6.54	10.82	15.74	19.64
21-1093	Social and Human Service Assistants	80	9.85	5.63	6.36	8.97	10.75	17.53
23-0000	Legal	50	18.31	11.39	15.17	17.91	20.58	24.92
23-1011	Lawyers	10	24.64	18.14	19.86	23.05	26.70	38.18

Graham County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
25-3999	All Other Teachers, Primary, Secondary, and Adult	20	32,697	22,956	24,683	27,505	42,300	49,393
25-4021	Librarians	10	17.06	12.21	14.05	17.82	20.03	21.36
27-0000	Arts, Design, Entertainment, Sports, and Media	110	12.20	6.37	8.31	9.97	14.69	23.73
29-0000	Healthcare Practitioners and Technical	230	23.08	9.69	12.48	16.42	30.71	48.10
29-1071	Physician Assistants	20	31.51	28.90	30.02	31.90	33.77	35.00
29-1111	Registered Nurses	50	16.90	9.80	14.18	16.70	19.97	22.23
31-0000	Healthcare Support	190	7.79	5.66	6.13	6.93	8.78	11.99
31-9092	Medical Assistants	40	10.00	7.67	8.66	9.98	11.38	12.96
33-0000	Protective Service	630	13.92	10.52	11.64	13.11	16.14	19.96
33-1011	First-Line Supervisors/Managers of Correctional Officers	40	19.92	14.27	15.43	18.29	24.15	27.07
33-3012	Correctional Officers and Jailers	360	13.97	11.22	11.93	13.10	15.67	18.65
33-3051	Police and Sheriff's Patrol Officers	130	14.34	11.28	11.99	13.17	16.21	19.83
33-9032	Security Guards	NA	9.04	6.77	8.75	9.41	10.08	10.48
35-0000	Food Preparation and Serving-Related	NA	7.28	5.49	5.79	6.28	6.79	13.19
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	NA	12.11	11.20	11.68	12.47	13.26	13.74
37-0000	Building and Grounds Cleaning and Maintenance	240	8.86	5.71	6.51	8.41	10.17	13.19
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	10	13.51	9.29	10.28	13.81	15.95	18.78
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	10	14.38	9.57	11.42	12.89	18.50	21.72
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	140	7.98	5.54	6.09	7.66	9.65	10.55
37-2012	Maids and Housekeeping Cleaners	20	6.98	5.77	6.42	7.11	7.82	8.25
37-3011	Landscaping and Groundskeeping Workers	NA	9.92	7.31	8.01	9.26	11.07	13.55

Graham County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
39-0000	Personal Care and Service	40	8.69	5.51	5.91	6.57	8.75	18.94
41-0000	Sales and Related	590	10.55	5.77	6.60	8.74	12.47	17.88
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	80	14.41	8.75	9.44	10.57	18.40	27.47
41-2011	Cashiers	120	7.26	5.51	6.03	6.89	7.86	8.45
41-2022	Parts Salespersons	70	9.82	6.49	7.96	9.90	11.78	13.31
41-2031	Retail Salespersons	200	9.80	5.73	6.42	7.84	11.77	16.41
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products	NA	15.23	9.81	11.17	13.73	18.06	21.02
43-0000	Office and Administrative Support	1,370	10.20	6.11	7.52	9.57	12.04	15.47
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	80	17.58	10.83	14.18	16.51	20.67	26.13
43-3021	Billing and Posting Clerks and Machine Operators	40	9.40	6.31	7.43	8.90	10.67	13.99
43-3031	Bookkeeping, Accounting, and Auditing Clerks	80	10.51	7.06	8.52	10.35	12.63	14.98
43-4051	Customer Service Representatives	30	7.55	5.47	5.92	6.67	8.57	10.84
43-4071	File Clerks	NA	6.64	5.56	5.82	6.27	6.72	6.99
43-4161	Human Resources Assistants, Ex. Payroll and Timekeeping	10	11.74	7.47	8.60	11.56	13.09	18.95
43-4171	Receptionists and Information Clerks	70	7.31	5.75	6.45	7.48	8.28	8.79
43-5052	Postal Service Mail Carriers	20	NA	NA	NA	NA	NA	NA
43-5071	Shipping, Receiving, and Traffic Clerks	30	11.16	6.21	7.26	8.55	17.41	20.17
43-5081	Stock Clerks and Order Fillers	60	8.37	5.39	5.73	6.31	10.56	16.51
43-6011	Executive Secretaries and Administrative Assistants	120	9.77	6.56	8.82	9.85	11.03	12.71
43-6012	Legal Secretaries	NA	11.58	8.75	9.68	11.34	13.14	15.68
43-6014	Secretaries, Ex. Legal, Medical, and Executive	250	10.46	7.43	8.84	10.64	12.22	13.19
43-9021	Data Entry Keyers	NA	12.38	6.08	7.57	14.42	16.60	18.49
43-9022	Word Processors and Typists	10	9.19	7.20	7.88	9.11	10.35	11.72
43-9061	Office Clerks, General	180	8.69	5.91	6.87	8.40	10.16	12.15
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	70	8.01	5.36	5.68	6.21	6.73	14.92

Graham County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
45-0000	Farming, Fishing, and Forestry	160	8.33	5.70	6.21	7.42	9.90	11.35
45-1011	First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	10	15.88	11.88	13.13	15.67	18.44	20.81
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	130	7.50	5.65	6.09	6.82	9.43	10.22
47-0000	Construction and Extraction	400	12.49	8.69	10.06	12.24	14.76	16.81
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	10	17.79	14.23	15.13	16.62	20.46	23.82
47-2061	Construction Laborers	70	9.22	7.41	8.16	9.23	10.26	11.04
47-2073	Operating Engineers and Other Construction Equipment Operators	NA	14.94	11.46	12.95	14.95	16.77	19.33
47-2111	Electricians	10	16.22	12.23	14.22	16.40	18.74	20.39
49-0000	Installation, Maintenance, and Repair	430	12.65	7.00	8.43	11.21	16.36	20.92
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	50	18.68	10.69	14.52	18.76	23.73	26.23
49-3023	Automotive Service Technicians and Mechanics	120	13.32	7.78	9.62	12.18	18.15	20.56
49-9042	Maintenance and Repair Workers, General	80	9.34	5.99	7.14	8.17	11.57	14.34
49-9098	Helpers – Installation, Maintenance, and Repair Workers	20	8.51	5.73	6.45	9.38	10.26	10.80
49-9099	Installation, Maintenance, and Repair Workers, All Other	20	10.29	6.24	8.85	10.87	12.57	13.56
51-0000	Production	220	10.74	6.06	7.31	9.81	13.30	18.04
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	10	16.54	10.13	14.45	17.38	19.71	21.10
51-5023	Printing Machine Operators	70	10.94	7.48	8.51	10.26	12.99	16.00
53-0000	Transportation and Material Moving	280	9.63	5.79	6.52	9.13	12.28	13.85
53-3032	Truck Drivers, Heavy and Tractor-Trailer	90	11.61	7.98	10.53	12.10	13.30	14.24
53-3033	Truck Drivers, Light or Delivery Services	30	7.23	5.56	5.98	6.69	7.94	10.72

Graham County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
53-7061	Cleaners of Vehicles and Equipment	NA	6.38	5.52	5.82	6.33	6.84	7.98
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	20	9.26	6.01	6.97	8.85	10.52	15.25

Notes:

- 1 Annual wages were reported for certain full-time jobs with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.
- NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Graham County (Cont.)

Greenlee County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	4,430	16.45	10.94	14.54	16.02	17.51	21.95
11-0000	Management	100	25.42	14.17	17.93	26.67	32.60	35.90
11-1021	General and Operations Managers	50	24.79	13.79	15.41	26.39	33.58	38.65
13-0000	Business and Financial Operations	100	16.08	8.38	12.13	15.06	19.80	24.51
13-1199	Business Operations Specialists, All Other	40	14.39	10.95	11.99	13.51	16.31	19.99
41-0000	Sales and Related	100	11.37	7.27	8.95	9.89	11.90	19.88
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products	NA	11.96	8.79	9.23	9.97	10.70	20.30
43-0000	Office and Administrative Support	300	15.24	8.64	10.65	14.60	18.88	22.39
43-6011	Executive Secretaries and Administrative Assistants	40	13.45	8.60	10.93	12.66	15.84	20.40
43-6014	Secretaries, Ex. Legal, Medical, and Executive	30	12.01	9.10	10.15	11.97	13.64	15.89
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	110	23.59	16.36	18.78	21.67	26.34	33.16
47-2031	Carpenters	120	15.86	11.90	14.46	15.93	17.41	20.08
47-2061	Construction Laborers	150	9.82	6.89	7.86	9.54	11.21	13.61
49-9098	Helpers - Installation, Maintenance, and Repair Workers	40	14.86	10.97	13.19	15.25	16.94	19.07

Notes:

1 Annual wages were reported for certain full-time jobs with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.

NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Greenlee County (Cont.)

La Paz County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	8,240	12.42	6.50	8.10	11.22	15.03	19.76
11-0000	Management	380	26.50	10.33	15.90	26.99	34.53	41.89
11-1021	General and Operations Managers	110	28.86	12.44	17.54	26.45	39.27	44.02
11-2022	Sales Managers	NA	27.02	17.66	18.65	20.29	38.47	50.00
11-3031	Financial Managers	10	28.33	22.01	26.23	29.63	32.19	33.72
11-9051	Food Service Managers	60	11.01	8.84	9.29	10.05	10.92	14.28
13-0000	Business and Financial Operations	50	18.62	11.76	14.03	16.15	20.18	35.94
13-2011	Accountants and Auditors	20	15.32	12.06	14.13	15.43	16.72	19.10
15-0000	Computer and Mathematical	50	17.13	12.91	14.37	15.75	17.37	25.68
15-1041	Computer Support Specialists	NA	15.67	14.33	14.87	15.78	16.68	17.28
17-0000	Architecture and Engineering	20	22.07	11.51	12.56	16.81	30.79	34.40
21-0000	Community and Social Services	50	18.40	13.24	14.78	17.25	22.25	25.92
25-0000	Education, Training, and Library	NA	13.53	8.14	10.32	13.36	16.54	19.64
27-0000	Arts, Design, Entertainment, Sports, and Media	NA	17.11	14.09	14.98	16.46	19.17	21.22
29-0000	Healthcare Practitioners and Technical	240	18.77	9.50	13.23	17.10	21.23	25.55
29-1111	Registered Nurses	90	20.17	15.65	17.84	20.20	23.20	25.63
33-0000	Protective Service	180	12.00	8.88	9.40	10.25	13.78	18.07
35-0000	Food Preparation and Serving-Related	1,260	7.27	5.45	5.89	6.63	8.04	10.27
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	50	13.57	9.63	11.85	14.21	15.72	16.63
35-2012	Cooks, Institution and Cafeteria	NA	9.20	7.37	7.93	8.81	10.44	11.98

La Paz County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
35-2014	Cooks, Restaurant	110	8.17	5.93	6.93	7.93	9.3	10.45
35-2021	Food Preparation Workers	NA	8.57	6.94	7.29	7.87	8.45	12.29
35-3011	Bartenders	120	6.88	5.59	6.18	7.01	7.75	8.20
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	NA	6.02	5.33	5.60	6.05	6.50	6.91
35-3031	Waiters and Waitresses	190	5.85	5.31	5.56	5.96	6.37	6.62
35-9021	Dishwashers	60	6.69	5.46	5.93	6.70	7.60	8.14
37-0000	Building and Grounds Cleaning and Maintenance	580	8.54	5.89	6.70	7.88	9.41	13.06
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	NA	14.12	8.29	10.61	14.36	16.64	20.45
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	NA	7.68	5.84	6.58	7.64	8.68	10.01
37-2012	Maids and Housekeeping Cleaners	NA	6.56	5.58	5.94	6.54	7.12	8.15
37-3011	Landscaping and Groundskeeping Workers	130	8.47	6.16	7.16	8.24	9.49	10.65
39-0000	Personal Care and Service	170	9.95	7.05	7.92	9.57	11.92	13.48
41-0000	Sales and Related	360	9.29	6.29	7.15	8.03	9.94	13.59
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	50	10.39	6.78	7.48	9.02	12.40	13.73
41-2011	Cashiers	170	7.60	5.95	6.91	7.63	8.32	9.11
41-2031	Retail Salespersons	40	8.60	5.90	6.75	7.65	11.23	13.50
41-9099	Sales and Related Workers, All Other	10	9.56	6.97	7.30	7.85	8.40	13.21
43-0000	Office and Administrative Support	840	11.45	7.29	8.68	10.58	13.43	17.08
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	50	16.33	11.34	13.24	15.31	16.98	22.62
43-3021	Billing and Posting Clerks and Machine Operators	60	11.18	7.95	9.28	10.60	13.14	15.75
43-3031	Bookkeeping, Accounting, and Auditing Clerks	70	12.67	9.21	10.76	12.06	13.30	19.01
43-3051	Payroll and Timekeeping Clerks		17.40	9.12	17.75	19.31	20.88	21.82

La Paz County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-4171	Receptionists and Information Clerks	10	8.30	6.88	7.35	8.11	9.48	10.43
43-5081	Stock Clerks and Order Fillers	20	9.59	6.18	7.20	9.36	11.58	13.99
43-6011	Executive Secretaries and Administrative Assistants	50	15.45	11.59	12.59	14.62	18.81	20.51
43-6014	Secretaries, Ex. Legal, Medical, and Executive	160	10.97	7.51	8.60	10.76	13.24	15.49
43-9061	Office Clerks, General	30	7.53	5.79	6.42	7.40	8.30	8.84
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	20	11.02	7.16	7.77	9.73	14.80	16.12
45-0000	Farming, Fishing, and Forestry	30	12.92	9.13	10.08	12.13	14.81	16.65
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	20	NA	NA	NA	NA	NA	NA
43-4171	Receptionists and Information Clerks	10	8.30	6.88	7.35	8.11	9.48	10.43
43-5081	Stock Clerks and Order Fillers	20	9.59	6.18	7.20	9.36	11.58	13.99
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	30	13.66	11.11	11.64	12.52	13.40	19.93
47-2073	Operating Engineers and Other Construction Equipment Operators	20	18.13	13.38	17.40	18.84	20.29	21.15
47-2111	Electricians	10	NA	NA	NA	NA	NA	NA
49-0000	Installation, Maintenance, and Repair	250	13.39	8.91	9.89	12.01	15.77	20.19
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	NA	10.96	9.00	9.42	10.12	10.82	17.98
49-9042	Maintenance and Repair Workers, General	110	12.63	8.76	10.00	12.60	15.46	16.91
53-0000	Transportation and Material Moving	550	12.18	8.45	10.92	12.21	13.38	15.26
53-3032	Truck Drivers, Heavy and Tractor-Trailer	50	16.50	10.18	13.58	15.95	18.82	23.77
53-3033	Truck Drivers, Light or Delivery Services	80	10.00	8.04	9.24	10.10	10.96	12.53
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	40	10.06	6.17	7.48	11.39	12.72	13.52

La Paz County (Cont.)

Notes:

- 1 Annual wages were reported for certain full-time jobs (e.g., teachers) with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.
- NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Mohave County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	35,310	12.40	5.95	7.00	10.00	14.75	21.13
11-0000	Management	1,740	25.10	10.86	15.21	22.24	32.09	43.23
11-1011	Chief Executives	130	40.55	17.48	20.58	39.35	57.53	70.01
11-1021	General and Operations Managers	670	25.97	11.73	16.12	23.04	33.86	42.82
11-2011	Advertising and Promotions Managers	50	25.88	9.54	12.17	22.70	39.10	51.60
11-2021	Marketing Managers	30	31.57	17.76	20.17	24.71	33.03	70.01
11-2022	Sales Managers	50	24.30	10.00	15.07	24.90	31.69	35.73
11-3011	Administrative Services Managers	70	18.87	9.10	12.10	16.60	21.86	32.60
11-3021	Computer and Information Systems Managers	30	32.31	19.41	23.43	29.49	38.95	54.86
11-3031	Financial Managers	80	26.08	14.15	16.33	25.39	34.05	41.37
11-3040	Human Resources Managers	50	18.17	10.21	12.05	16.27	23.50	27.10
11-3051	Industrial Production Managers	20	21.97	14.30	15.91	19.70	26.79	34.48
11-3071	Transportation, Storage, and Distribution Managers	20	24.02	13.81	22.70	25.52	28.04	31.71
11-9021	Construction Managers	20	26.25	22.91	24.13	26.15	28.12	31.83
11-9031	Education Administrators, Preschool and Child Care Center/Program	10	13.45	9.21	9.80	10.79	16.87	21.00
11-9032	Education Administrators, Elementary and Secondary School	70	51,985	40,091	46,873	52,371	59,359	66,797
11-9041	Engineering Managers	10	36.50	20.30	29.98	34.16	47.97	53.23
11-9051	Food Service Managers	100	14.41	9.44	11.60	14.35	16.72	19.63
11-9131	Postmasters and Mail Superintendents	10	NA	NA	NA	NA	NA	NA
11-9141	Property, Real Estate, and Community Association Managers	40	19.19	11.74	13.34	21.56	24.31	26.07
11-9151	Social and Community Service Managers	20	9.66	5.80	6.48	8.32	11.97	16.99
11-9199	Managers, All Other	130	26.29	11.97	17.64	24.05	35.26	43.33
13-0000	Business and Financial Operations	510	18.68	11.08	13.85	17.13	21.27	29.36
13-1022	Wholesale and Retail Buyers, Ex. Farm Products	10	30.61	12.80	22.51	28.24	39.61	42.68
13-1023	Purchasing Agents, Ex. Wholesale, Retail, and Farm Products	30	17.59	10.79	12.26	15.41	20.65	28.19

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
13-1041	Compliance Officers, Ex. Agriculture, Construction, Health and Safety, and Transportation	40	17.18	13.19	14.81	17.05	19.69	21.43
13-1051	Cost Estimators	20	17.51	13.13	14.61	16.59	19.68	21.82
13-1071	Employment, Recruitment, and Placement Specialists	20	15.98	10.01	12.89	15.59	17.79	23.91
13-1073	Training and Development Specialists	20	21.70	9.57	11.12	27.71	31.76	33.95
13-1111	Management Analysts	30	18.75	10.24	17.72	19.54	21.37	23.95
13-1199	Business Operations Specialists, All Other	50	21.55	11.48	13.24	16.41	27.59	42.24
13-2011	Accountants and Auditors	90	17.38	12.62	14.40	16.23	19.25	21.91
13-2031	Budget Analysts	10	17.46	13.50	14.99	18.03	20.16	21.43
13-2072	Loan Officers	100	15.93	6.59	12.50	16.25	19.29	21.14
15-0000	Computer and Mathematical	160	18.80	11.02	14.26	17.37	22.66	27.78
15-1021	Computer Programmers	20	21.00	12.08	15.20	19.96	26.67	32.45
15-1041	Computer Support Specialists	60	15.06	8.78	11.58	14.93	17.65	21.43
15-1051	Computer Systems Analysts	10	23.30	16.72	20.48	23.77	26.39	29.73
15-1071	Network and Computer Systems Administrators	40	21.22	15.60	17.45	20.27	24.79	28.83
17-0000	Architecture and Engineering	340	20.13	12.60	14.31	17.51	24.75	32.55
17-2141	Mechanical Engineers	NA	25.21	13.05	18.11	24.77	33.45	38.40
17-3013	Mechanical Drafters	NA	12.91	11.51	12.00	12.80	13.60	14.29
19-0000	Life, Physical, and Social Science	80	19.29	11.18	14.87	19.95	24.27	26.61
19-3031	Clinical, Counseling, and School Psychologists	20	19.89	14.76	16.64	20.05	23.61	25.80
19-4093	Forest and Conservation Technicians	10						
21-0000	Community and Social Services	390	12.06	6.90	8.71	11.28	14.91	18.45
21-1012	Educational, Vocational, and School Counselors	30	17.03	14.15	15.12	16.74	19.19	20.73
21-1021	Child, Family, and School Social Workers	90	11.86	5.94	6.80	12.50	15.18	16.91
21-1022	Medical and Public Health Social Workers	NA	15.58	9.30	10.18	12.47	23.24	26.34
21-1093	Social and Human Service Assistants	30	9.51	6.16	7.29	8.73	10.10	17.79

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
23-0000	Legal	110	27.00	12.07	16.50	22.19	39.12	43.53
23-1011	Lawyers	50	38.84	31.28	36.68	39.94	43.21	45.47
23-2011	Paralegals and Legal Assistants	20	14.15	9.45	13.69	15.13	16.31	17.02
25-0000	Education, Training, and Library	1,910	26,878	13,472	17,348	26,771	33,544	41,208
25-2011	Preschool Teachers, Ex. Special Education	140	8.12	5.64	6.04	6.72	8.75	15.01
25-2012	Kindergarten Teachers, Ex. Special Education	50	30,864	23,730	26,184	30,582	35,245	40,879
25-2021	Elementary School Teachers, Ex. Special Education	630	30,938	23,852	26,060	30,072	34,532	41,028
25-2022	Middle School Teachers, Ex. Special and Vocational Education	160	30,837	23,797	25,952	30,033	34,827	40,889
25-4021	Librarians	30	16.97	13.41	14.58	16.39	19.69	23.10
25-4031	Library Technicians	20	9.45	6.42	7.58	9.33	11.33	12.88
25-9041	Teacher Assistants	510	15,836	11,812	13,360	15,463	17,478	21,200
27-0000	Arts, Design, Entertainment, Sports, and Media	230	13.44	6.60	8.97	11.35	17.49	22.11
27-1023	Floral Designers	20	10.06	9.11	9.49	10.12	10.75	11.11
27-1024	Graphic Designers	10	12.38	9.58	11.08	12.37	13.70	15.74
27-3010	Announcers	NA	7.39	5.53	5.81	6.27	6.74	17.35
27-3031	Public Relations Specialists	10	19.92	12.32	13.88	16.43	22.31	38.35
27-3041	Editors	20	15.09	9.45	11.27	13.40	17.77	23.37
29-0000	Healthcare Practitioners and Technical	2,030	24.72	8.82	12.78	18.63	26.96	70.00
29-1020	Dentists	10	48.48	44.14	46.82	50.10	53.37	55.34
29-1051	Pharmacists	90	40.46	36.11	37.90	40.89	43.88	47.45
29-1062	Family and General Practitioners	10	61.70	41.02	57.34	69.78	72.97	72.97
29-1071	Physician Assistants	20	36.08	27.00	29.74	36.50	42.66	48.46
29-1127	Speech-Language Pathologists	20	18.17	13.61	14.44	15.81	22.84	28.09
29-2041	Emergency Medical Technicians and Paramedics	220	11.98	5.90	6.76	8.49	12.54	17.51
29-2052	Pharmacy Technicians	50	10.14	7.60	8.50	10.06	11.95	13.24
29-2071	Medical Records and Health Information Technicians	60	9.42	7.14	8.48	9.55	10.57	11.83
29-9199	All Other Health Professionals and Technicians	40	14.32	10.08	11.73	13.97	16.80	19.54

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
31-0000	Healthcare Support	810	8.42	6.05	7.01	8.08	9.76	11.38
31-1011	Home Health Aides	140	7.47	5.76	6.40	7.35	8.61	9.86
31-1012	Nursing Aides, Orderlies, and Attendants	360	7.89	5.89	6.79	7.77	8.88	10.47
31-9091	Dental Assistants	70	7.86	5.80	6.79	7.84	8.93	10.35
31-9092	Medical Assistants	90	9.23	6.88	7.40	8.27	11.63	13.05
31-9094	Medical Transcriptionists	50	11.62	8.27	10.32	11.98	13.19	14.05
31-9095	Pharmacy Aides	40	9.48	7.97	9.00	9.72	10.44	10.87
33-0000	Protective Service	1,200	15.63	7.42	9.98	15.43	20.34	25.25
33-1012	First-Line Supervisors/Managers of Police and Detectives	NA	24.75	19.34	22.84	25.10	27.36	30.59
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	120	25.06	18.85	22.27	25.05	28.06	32.81
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	10	18.06	10.94	12.28	15.63	25.01	30.48
33-2011	Fire Fighters	370	13.69	7.20	9.57	13.61	18.49	20.52
33-2021	Fire Inspectors and Investigators	NA	22.78	18.26	20.64	23.74	26.02	27.38
33-3031	Fish and Game Wardens	20	NA	NA	NA	NA	NA	NA
33-3051	Police and Sheriff's Patrol Officers	NA	18.41	14.54	15.78	17.94	20.77	23.18
33-9032	Security Guards	270	9.74	6.11	7.22	8.66	12.34	14.32
33-9099	Protective Service Workers, All Other	30	16.33	11.82	13.07	16.22	19.19	20.80
35-0000	Food Preparation and Serving-Related	4,550	6.90	5.51	5.86	6.44	7.40	9.73
35-1011	Chefs and Head Cooks	NA	14.34	8.44	11.90	15.18	16.65	17.53
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	360	10.18	7.38	9.12	10.43	11.73	12.87
35-2011	Cooks, Fast Food	NA	6.97	5.69	6.25	7.16	7.98	8.48
35-2012	Cooks, Institution and Cafeteria	60	8.48	6.29	7.25	8.39	9.74	10.65
35-2014	Cooks, Restaurant	NA	8.66	7.08	7.43	8.02	8.75	11.34
35-2021	Food Preparation Workers	NA	6.15	5.48	5.74	6.18	6.63	6.93
35-3011	Bartenders	160	6.92	5.53	5.86	6.42	7.14	10.17

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	740	6.55	5.51	5.81	6.32	6.84	8.59
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	230	6.76	5.54	5.91	6.54	7.60	8.83
35-3031	Waiters and Waitresses	NA	5.97	5.41	5.66	6.09	6.51	6.77
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	NA	6.35	5.40	5.68	6.14	6.59	7.37
35-9021	Dishwashers	260	6.05	5.40	5.67	6.12	6.56	6.95
37-0000	Building and Grounds Cleaning and Maintenance	1,300	8.34	5.78	6.61	7.79	9.48	12.14
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	80	11.12	8.75	9.42	10.54	12.26	13.45
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	20	13.23	6.99	10.18	12.29	15.12	21.70
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	380	7.67	5.91	6.82	7.57	8.32	9.63
37-2012	Maids and Housekeeping Cleaners	390	6.65	5.47	5.90	6.62	7.58	8.20
37-2021	Pest Control Workers	110	11.08	9.01	9.65	10.71	12.44	13.54
37-3011	Landscaping and Groundskeeping Workers	320	9.29	6.14	7.23	8.50	10.85	13.88
39-0000	Personal Care and Service	840	7.49	5.58	6.00	6.70	8.21	10.53
39-1021	First-Line Supervisors/Managers of Personal Service Workers	20	16.83	8.72	10.73	17.02	22.80	25.93
39-2021	Non-farm Animal Caretakers	30	6.79	5.45	5.72	6.17	6.63	7.01
39-3091	Amusement and Recreation Attendants	NA	6.73	5.57	5.96	6.61	7.65	8.55
39-9011	Child Care Workers	110	6.39	5.49	5.81	6.35	6.91	7.98
39-9031	Fitness Trainers and Aerobics Instructors	NA	10.48	6.56	8.25	9.91	13.50	15.60
39-9032	Recreation Workers	70	7.85	5.53	5.96	6.69	8.98	12.93

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
41-0000	Sales and Related	4,220	10.64	5.84	6.67	8.67	12.44	16.83
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	600	13.98	7.47	8.61	11.43	14.74	23.83
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	20	12.15	6.00	6.92	11.59	15.11	21.20
41-2011	Cashiers	1,710	8.57	5.69	6.29	7.64	11.58	12.99
41-2021	Counter and Rental Clerks	NA	7.96	5.58	5.96	6.58	8.50	14.16
41-2022	Parts Salespersons	120	11.31	7.61	8.52	9.72	10.91	16.81
41-2031	Retail Salespersons	1,060	10.70	5.76	6.52	8.07	11.06	21.40
41-3011	Advertising Sales Agents	110	15.25	11.40	11.97	12.94	13.91	21.23
41-3021	Insurance Sales Agents	NA	11.66	8.72	9.14	9.85	10.55	18.36
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	NA	20.34	8.39	15.85	23.02	25.13	26.40
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products	150	17.55	9.59	13.73	16.45	21.28	25.77
41-9022	Real Estate Sales Agents	50	10.61	7.99	8.83	9.58	10.33	15.67
41-9099	Sales and Related Workers, All Other	NA	17.20	6.72	11.34	15.72	23.35	31.30
43-0000	Office and Administrative Support	5,480	10.55	6.38	7.77	9.84	12.54	16.37
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	340	14.93	9.93	11.73	14.23	17.16	21.01
43-2011	Switchboard Operators, Inc. Answering Service	30	9.23	7.28	8.00	9.10	10.43	12.06
43-3011	Bill and Account Collectors	30	12.36	7.99	8.92	10.21	14.69	23.54
43-3021	Billing and Posting Clerks and Machine Operators	150	9.96	7.19	7.93	9.56	11.31	13.63
43-3031	Bookkeeping, Accounting, and Auditing Clerks	490	10.40	6.21	7.87	10.44	12.39	13.71
43-3051	Payroll and Timekeeping Clerks	50	12.96	9.17	10.80	12.56	15.02	16.91
43-3071	Tellers	90	9.17	7.41	8.44	9.36	10.20	10.71
43-4051	Customer Service Representatives	330	8.91	5.87	6.65	8.96	10.47	12.47
43-4061	Eligibility Interviewers, Government Programs	80	NA	NA	NA	NA	NA	NA

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-4071	File Clerks	60	8.14	5.81	6.62	7.88	9.15	11.10
43-4081	Hotel, Motel, and Resort Desk Clerks	NA	7.74	6.79	7.11	7.66	8.20	8.67
43-4121	Library Assistants, Clerical	30	8.04	5.49	6.01	7.22	10.16	12.08
43-4131	Loan Interviewers and Clerks	60	11.60	8.64	9.31	10.47	12.39	14.83
43-4151	Order Clerks	60	11.11	7.45	8.45	11.05	13.12	15.61
43-4161	Human Resources Assistants, Ex. Payroll and Timekeeping	50	10.77	8.57	9.33	10.43	12.07	13.27
43-4171	Receptionists and Information Clerks	350	7.97	5.88	6.82	7.79	9.04	10.53
43-5021	Couriers and Messengers	10	8.54	7.19	7.63	8.36	9.62	10.51
43-5031	Police, Fire, and Ambulance Dispatchers	70	12.42	7.14	8.38	10.78	16.38	18.81
43-5032	Dispatchers, Ex. Police, Fire, and Ambulance	40	12.54	7.63	8.51	10.63	17.32	19.81
43-5041	Meter Readers, Utilities	130	11.89	8.76	9.70	11.35	13.99	16.88
43-5051	Postal Service Clerks	20	NA	NA	NA	NA	NA	NA
43-5052	Postal Service Mail Carriers	130	NA	NA	NA	NA	NA	NA
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	20	NA	NA	NA	NA	NA	NA
43-5061	Production, Planning, and Expediting Clerks	90	9.68	6.77	7.77	9.21	10.67	12.87
43-5071	Shipping, Receiving, and Traffic Clerks	190	10.00	6.71	7.73	9.36	11.48	15.63
43-5081	Stock Clerks and Order Fillers	600	9.39	6.03	7.02	8.60	10.71	14.91
43-6011	Executive Secretaries and Administrative Assistants	390	13.18	9.18	10.11	12.71	15.89	17.41
43-6012	Legal Secretaries	50	13.39	7.42	9.78	14.86	16.43	17.38
43-6014	Secretaries, Ex. Legal, Medical, and Executive	330	10.15	6.54	8.70	10.10	11.84	13.30
43-9021	Data Entry Keyers	50	8.33	5.93	6.75	8.41	9.80	10.66
43-9022	Word Processors and Typists	20	9.09	7.00	7.68	8.88	10.32	12.18
43-9041	Insurance Claims and Policy Processing Clerks	NA	14.84	11.95	13.05	14.73	16.28	17.22
43-9051	Mail Clerks and Mail Machine Operators, Ex. Postal Service	50	7.08	5.61	6.00	6.65	7.90	9.83
43-9061	Office Clerks, General	650	8.68	5.77	6.53	8.12	10.24	12.80
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	60	12.45	8.51	9.42	10.99	13.04	18.49

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
45-0000	Farming, Fishing, and Forestry	20	10.05	6.51	8.97	9.85	10.73	12.79
47-0000	Construction and Extraction	2,440	12.47	7.15	9.05	11.85	15.00	17.51
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	180	22.24	14.79	16.78	19.42	23.08	39.07
47-2031	Carpenters	140	11.67	7.92	9.96	12.03	13.31	14.51
47-2051	Cement Masons and Concrete Finishers	NA	14.02	11.68	12.51	13.91	15.76	16.89
47-2061	Construction Laborers	170	10.26	7.70	8.85	10.21	11.79	13.04
47-2071	Paving, Surfacing, and Tamping Equipment Operators	NA	10.69	9.16	9.65	10.47	11.49	13.04
47-2073	Operating Engineers and Other Construction Equipment Operators	100	15.28	12.21	14.08	15.23	16.39	17.16
47-2081	Drywall and Ceiling Tile Installers	NA	10.97	5.92	6.77	8.30	13.10	21.45
47-2111	Electricians	260	12.89	9.10	10.00	11.95	14.62	16.73
47-2141	Painters, Construction and Maintenance	30	11.11	7.73	9.03	10.84	12.94	15.35
47-2152	Plumbers, Pipefitters, and Steamfitters	60	16.72	12.21	14.02	15.73	18.60	23.76
47-2161	Plasterers and Stucco Masons	NA	13.77	9.62	10.81	13.87	16.28	18.18
47-2181	Roofers	60	13.91	9.95	11.95	14.35	15.86	16.76
47-3012	Helpers – Carpenters	90	8.56	6.10	7.13	8.61	10.09	11.02
47-3014	Helpers – Painters, Paperhangers, Plasterers, and Stucco Masons	40	7.15	5.59	6.07	6.87	8.31	9.67
47-3016	Helpers – Roofers	NA	7.11	5.64	6.07	6.77	8.49	9.75
47-4011	Construction and Building Inspectors	20	14.92	11.38	14.01	15.33	16.64	17.47
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	NA	8.50	6.91	7.31	7.97	9.06	10.75
47-4999	All Other Construction Trades and Related Workers	20	NA	NA	NA	NA	NA	NA
49-0000	Installation, Maintenance, and Repair	2,060	12.73	5.97	7.88	10.79	16.35	21.51
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	150	20.47	10.39	12.58	17.54	26.24	38.34
49-3021	Automotive Body and Related Repairers	40	15.88	6.44	10.34	16.54	20.57	24.37
49-3023	Automotive Service Technicians and Mechanics	620	11.38	5.53	6.11	9.24	15.05	21.97
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	60	16.35	10.27	14.47	16.37	19.01	21.46

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
49-3051	Motorboat Mechanics	20	11.07	6.91	8.21	11.14	13.60	16.02
49-9012	Control and Valve Installers and Repairers, Ex. Mechanical Door	60	17.42	11.90	13.90	16.96	20.32	24.64
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	40	14.89	10.86	13.91	15.15	16.40	18.01
49-9041	Industrial Machinery Mechanics	10	22.22	12.24	13.85	17.22	28.14	39.77
49-9042	Maintenance and Repair Workers, General	500	10.36	6.78	8.53	9.87	11.05	15.50
49-9043	Maintenance Workers, Machinery	NA	16.11	9.75	11.13	17.69	20.05	21.47
49-9098	Helpers - Installation, Maintenance, and Repair Workers	100	9.45	5.95	6.99	9.05	11.62	13.78
49-9099	Installation, Maintenance, and Repair Workers, All Other	100	14.51	6.57	8.04	13.55	19.23	23.16
51-0000	Production	2,640	12.43	7.16	8.86	11.06	15.35	19.58
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	140	20.17	11.30	14.86	17.30	23.53	33.03
51-2041	Structural Metal Fabricators and Fitters	30	NA	NA	NA	NA	NA	NA
51-2091	Fiberglass Laminators and Fabricators	50	12.87	8.60	9.88	11.85	13.83	20.01
51-2092	Team Assemblers	340	9.83	7.36	8.15	9.43	10.61	13.96
51-3011	Bakers	160	8.97	6.29	7.34	8.52	10.93	12.73
51-3021	Butchers and Meat Cutters	80	14.31	11.27	12.80	14.73	16.20	17.10
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	NA	15.03	9.25	11.34	14.42	18.89	21.24
51-4041	Machinists	60	14.36	7.57	9.26	12.66	18.27	25.09
51-4121	Welders, Cutters, Solderers, and Brazers	30	12.29	6.50	9.35	11.84	15.67	17.50
51-5021	Job Printers	NA	11.72	8.67	9.41	10.54	13.78	17.22
51-5023	Printing Machine Operators	20	12.35	8.77	9.94	11.85	14.52	17.36
51-7011	Cabinetmakers and Bench Carpenters	90	11.24	8.01	9.30	10.94	13.15	15.55
51-7021	Furniture Finishers	20	10.50	8.90	9.40	10.23	11.75	13.11
51-8031	Water and Liquid Waste Treatment Plant and System Operators	NA	16.32	14.29	14.96	16.07	17.18	19.42
51-9022	Grinding and Polishing Workers, Hand	20	12.63	7.57	9.23	10.68	15.36	22.87

Mohave County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	130	11.15	7.93	9.20	10.61	12.68	14.64
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	20	12.72	7.33	8.21	11.37	16.40	21.60
51-9198	Helpers – Production Workers	40	8.66	6.08	7.31	8.75	10.14	11.13
51-9199	Production Workers, All Other	NA	10.56	6.10	7.39	10.08	13.88	15.97
53-0000	Transportation and Material Moving	2,250	9.75	5.77	6.52	8.42	11.46	16.66
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	10	13.25	9.49	10.46	12.31	16.33	18.97
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle	50	17.61	8.82	10.14	18.22	24.04	27.88
53-3021	Bus Drivers, Transit and Intercity	NA	9.92	6.86	9.00	10.11	11.33	12.93
53-3022	Bus Drivers, School	150	9.55	8.66	9.03	9.64	10.26	10.63
53-3031	Driver/Sales Workers	140	8.60	5.47	5.91	6.66	9.31	12.54
53-3032	Truck Drivers, Heavy and Tractor-Trailer	220	15.35	10.88	12.83	15.18	18.24	20.64
53-3033	Truck Drivers, Light or Delivery Services	400	10.25	6.12	7.29	9.22	12.20	16.85
53-3041	Taxi Drivers and Chauffeurs	30	7.12	5.55	5.90	6.48	7.39	11.46
53-6021	Parking Lot Attendants	NA	6.56	5.57	5.91	6.48	7.15	8.37
53-6031	Service Station Attendants	90	7.02	5.58	6.18	7.06	7.90	8.40
53-7021	Crane and Tower Operators	10	14.47	9.64	11.67	14.89	16.86	19.24
53-7051	Industrial Truck and Tractor Operators	100	10.25	7.90	8.94	10.19	11.94	13.11
53-7061	Cleaners of Vehicles and Equipment	120	7.50	5.69	6.18	6.98	8.15	9.02
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	390	9.77	5.92	6.95	8.03	11.96	17.17
53-7064	Packers and Packagers, Hand	370	6.23	5.51	5.78	6.23	6.68	6.99

Notes:

- 1 Annual wages were reported for certain full-time jobs (e.g., teachers) with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.
- NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Navajo County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	30,980	12.44	6.01	7.26	10.27	14.92	21.37
11-0000	Management	1,430	27.12	11.95	16.67	24.62	33.79	49.01
11-1011	Chief Executives	120	43.07	27.91	32.55	42.32	52.97	66.69
11-1021	General and Operations Managers	370	30.55	12.64	19.90	26.24	40.44	54.60
11-1031	Legislators	30	NA	NA	NA	NA	NA	NA
11-2022	Sales Managers	30	24.30	11.27	12.33	15.35	37.00	53.77
11-2031	Public Relations Managers	20	23.77	17.59	18.47	19.93	21.40	45.40
11-3011	Administrative Services Managers	30	20.99	14.72	16.02	19.01	26.50	31.45
11-3021	Computer and Information Systems Managers	30	25.03	17.83	19.08	21.17	31.69	37.77
11-3031	Financial Managers	80	26.44	16.96	20.75	25.01	31.42	39.89
11-3040	Human Resources Managers	30	21.70	13.95	15.07	16.93	25.12	40.21
11-3061	Purchasing Managers	30	17.49	9.82	13.89	15.63	20.54	30.07
11-9021	Construction Managers	10	22.93	15.35	17.38	22.97	27.12	32.39
11-9032	Education Administrators, Elementary and Secondary School	90	52,681	40,249	47,245	52,707	60,303	68,364
11-9041	Engineering Managers	10	34.02	21.14	28.66	35.36	40.73	44.73
11-9051	Food Service Managers	130	12.56	7.53	8.83	12.22	15.17	16.91
11-9111	Medical and Health Services Managers	40	27.48	21.54	23.42	26.38	31.00	34.44
11-9121	Natural Sciences Managers	40	NA	NA	NA	NA	NA	NA
11-9131	Postmasters and Mail Superintendents	20	NA	NA	NA	NA	NA	NA
11-9151	Social and Community Service Managers	100	22.48	13.36	15.39	21.98	28.50	32.80
11-9199	Managers, All Other	160	33.65	16.11	23.28	31.35	41.27	61.01
13-0000	Business and Financial Operations	320	17.11	10.21	12.16	15.39	20.21	26.38
13-1022	Wholesale and Retail Buyers, Ex. Farm Products	10	20.73	8.24	10.72	12.48	37.29	42.13
13-1023	Purchasing Agents, Ex. Wholesale, Retail, and Farm Products	30	18.39	13.67	15.37	18.09	20.56	24.94
13-1051	Cost Estimators	NA	17.14	10.80	12.13	15.51	22.59	26.51
13-1071	Employment, Recruitment, and Placement Specialists	20	13.01	10.08	11.24	12.42	13.81	16.38
13-1072	Compensation, Benefits, and Job Analysis Specialists	20	13.23	9.43	10.81	12.70	15.13	16.73
13-1073	Training and Development Specialists	30	12.59	7.52	8.74	11.12	13.05	16.57
13-1199	Business Operations Specialists, All Other	50	16.60	10.50	11.85	14.38	21.26	26.31
13-2011	Accountants and Auditors	40	16.51	10.60	12.60	15.72	19.75	25.72

Navajo County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
13-2031	Budget Analysts	10	18.90	13.04	14.72	17.98	22.26	26.76
13-2072	Loan Officers	30	22.83	10.98	13.61	17.37	25.40	49.60
15-0000	Computer and Mathematical	120	18.30	10.72	13.99	16.55	21.76	26.64
15-1021	Computer Programmers	40	16.35	12.44	14.17	15.87	18.38	21.12
15-1041	Computer Support Specialists	30	13.81	9.22	10.29	13.52	16.18	20.17
15-1051	Computer Systems Analysts	10	20.78	15.04	17.31	20.71	24.48	26.81
15-1061	Database Administrators	10	24.00	9.70	12.20	23.92	27.04	42.49
15-1071	Network and Computer Systems Administrators	20	21.43	14.65	15.93	19.24	25.50	34.41
17-0000	Architecture and Engineering	110	21.98	12.20	15.09	20.12	29.41	33.91
17-2051	Civil Engineers	10	23.49	17.34	18.78	21.00	25.63	32.53
17-2199	Engineers, All Other	NA	27.09	15.95	22.94	27.91	32.52	37.28
17-3099	All Other Drafters, Engineering, and Mapping Technicians	20	NA	NA	NA	NA	NA	NA
19-0000	Life, Physical, and Social Science	270	14.71	8.52	10.84	13.85	17.59	23.17
19-1031	Conservation Scientists	10	NA	NA	NA	NA	NA	NA
19-1032	Foresters	30	19.32	13.57	16.83	19.60	22.79	25.47
19-3031	Clinical, Counseling, and School Psychologists	50	15.70	9.94	11.88	14.68	17.79	24.51
19-3099	Social Scientists and Related Workers, All Other	10	22.64	18.12	19.81	22.65	25.52	27.25
19-4093	Forest and Conservation Technicians	140	NA	NA	NA	NA	NA	NA
21-0000	Community and Social Services	220	15.57	9.99	12.58	15.49	18.42	21.21
21-1012	Educational, Vocational, and School Counselors	60	16.93	13.79	14.76	16.38	19.45	21.77
21-1021	Child, Family, and School Social Workers	30	12.20	9.44	11.09	12.20	13.31	15.72
21-1022	Medical and Public Health Social Workers	10	12.80	8.94	9.61	10.72	15.90	17.31
21-1093	Social and Human Service Assistants	30	13.42	8.88	10.68	14.10	15.84	16.89
23-0000	Legal	240	22.74	9.85	11.92	16.93	33.06	42.51
23-1011	Lawyers	100	35.35	27.67	30.19	34.17	42.07	49.23
23-9099	All Other Legal and Related Workers	NA	15.73	11.22	12.60	15.15	18.28	21.65

Navajo County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
25-0000	Education, Training, and Library	2,690	14.22	6.82	9.72	13.34	17.81	22.50
25-2012	Kindergarten Teachers, Ex. Special Education	30	31,090	20,674	25,577	31,585	37,031	42,012
25-2021	Elementary School Teachers, Ex. Special Education	1,010	34,114	21,821	25,887	32,367	41,137	51,683
25-2022	Middle School Teachers, Ex. Special and Vocational Education	200	32,006	23,939	26,618	31,605	37,685	42,432
25-2023	Vocational Education Teachers, Middle School	20	34,146	24,111	26,393	37,174	40,946	43,210
25-2031	Secondary School Teachers, Ex. Special and Vocational Education	220	30,785	23,747	25,699	29,390	35,196	41,532
25-2032	Vocational Education Teachers, Secondary School	70	31,951	24,345	27,912	32,183	35,723	40,935
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	40	26,163	21,355	23,440	25,759	28,078	32,808
25-2042	Special Education Teachers, Middle School	10	28,806	23,857	25,264	27,609	31,723	37,243
25-2043	Special Education Teachers, Secondary School	20	31,280	24,467	27,284	31,222	34,662	39,429
25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	20	12.93	10.90	11.39	12.20	13.02	13.58
25-3999	All Other Teachers, Primary, Secondary, and Adult	120	34,268	19,372	21,240	31,337	48,069	54,581
25-4021	Librarians	20	16.63	11.83	13.44	16.04	19.48	23.22
25-4031	Library Technicians	30	9.87	6.07	7.06	10.10	12.24	13.62
25-9041	Teacher Assistants	680	16,526	11,790	13,090	15,259	18,691	24,458
27-0000	Arts, Design, Entertainment, Sports, and Media	160	9.67	5.98	7.12	8.22	10.56	15.95
27-1024	Graphic Designers	NA	8.90	7.32	7.75	8.46	9.72	10.90
27-1026	Merchandise Displayers and Window Trimmers	NA	9.67	8.44	9.24	9.90	10.55	10.94
27-3031	Public Relations Specialists	10	19.20	14.24	15.35	18.57	23.48	25.75
29-0000	Healthcare Practitioners and Technical	1,300	22.76	8.16	12.74	19.38	28.43	34.45
29-1051	Pharmacists	20	31.27	28.24	29.53	31.56	33.59	35.09
29-1062	Family and General Practitioners	40	40.97	31.07	36.28	40.32	45.76	53.83
29-1071	Physician Assistants	NA	16.38	13.95	14.56	15.57	16.57	23.35
29-1111	Registered Nurses	400	20.61	15.03	17.78	20.60	23.96	26.57
29-1127	Speech-Language Pathologists	30	16.35	11.13	12.22	14.37	17.00	29.59
29-2012	Medical and Clinical Laboratory Technicians	20	12.77	9.22	10.12	11.90	15.26	18.31
29-2041	Emergency Medical Technicians and Paramedics	NA	9.82	6.24	7.09	7.90	9.45	15.70
29-2052	Pharmacy Technicians	NA	10.42	8.27	9.19	10.06	11.01	14.23
29-2071	Medical Records and Health Information Technicians	40	12.01	9.05	10.29	11.89	13.38	15.70

Navajo County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
31-0000	Healthcare Support	780	9.94	6.35	7.74	10.63	12.20	13.14
31-1012	Nursing Aides, Orderlies, and Attendants	210	8.61	6.53	7.41	8.37	9.91	11.49
31-9091	Dental Assistants		12.16	11.03	11.46	12.19	12.91	13.35
31-9092	Medical Assistants	120	9.57	7.31	8.12	9.53	10.95	12.51
31-9099	Healthcare Support Workers, All Other	10	NA	NA	NA	NA	NA	NA
33-0000	Protective Service	1,770	12.53	6.16	8.06	13.13	16.12	19.07
33-1012	First-Line Supervisors/Managers of Police and Detectives	40	21.07	14.40	17.29	21.74	25.36	27.85
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	40	17.23	14.56	15.60	17.23	19.16	20.57
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	50	13.55	9.13	10.92	12.21	13.85	16.76
33-2011	Fire Fighters		8.07	5.57	5.92	6.49	11.25	14.55
33-3012	Correctional Officers and Jailers	380	14.52	11.43	13.63	14.82	16.03	16.76
33-3021	Detectives and Criminal Investigators	30	18.34	14.84	16.34	18.31	20.37	21.80
33-3031	Fish and Game Wardens	20	18.47	12.86	16.71	18.90	20.89	23.94
33-3051	Police and Sheriff's Patrol Officers	250	16.36	12.70	14.35	16.49	18.76	20.44
33-9011	Animal Control Workers	130	8.40	5.56	6.10	8.17	10.64	12.42
33-9032	Security Guards	210	8.45	6.88	7.40	8.30	9.66	10.48
33-9099	Protective Service Workers, All Other	80	15.21	7.10	13.14	16.84	19.16	20.56
35-0000	Food Preparation and Serving-Related	2,330	6.84	5.42	5.78	6.37	7.43	9.33
35-1011	Chefs and Head Cooks	NA	10.14	7.13	7.68	8.69	10.44	15.53
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	100	9.73	7.10	7.77	9.20	11.67	13.12
35-2011	Cooks, Fast Food	80	7.11	5.78	6.64	7.28	7.89	8.26
35-2012	Cooks, Institution and Cafeteria	160	9.95	7.12	7.81	9.24	11.41	13.45
35-2014	Cooks, Restaurant	130	8.59	6.26	7.69	8.96	9.87	10.42
35-2015	Cooks, Short Order	60	7.21	5.69	6.37	7.19	7.96	8.43
35-2021	Food Preparation Workers	230	6.56	5.41	5.76	6.34	7.16	8.21
35-3011	Bartenders	90	6.88	5.50	6.01	6.90	7.80	8.34
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	NA	6.29	5.39	5.67	6.14	6.61	7.74

Navajo County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	120	5.92	5.35	5.60	6.02	6.44	6.69
35-3031	Waiters and Waitresses	390	5.91	5.34	5.59	6.01	6.42	6.67
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	170	5.83	5.32	5.57	5.97	6.37	6.61
35-9021	Dishwashers	160	5.89	5.35	5.60	6.01	6.42	6.67
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	110	6.40	5.40	5.76	6.34	7.13	7.96
37-0000	Building and Grounds Cleaning and Maintenance	1,330	7.62	5.58	6.16	7.26	8.55	10.40
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	70	8.90	7.14	7.69	8.68	10.00	10.94
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	60	10.55	7.27	8.05	9.28	10.48	15.53
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	510	7.88	5.64	6.31	7.59	9.19	10.79
37-2012	Maids and Housekeeping Cleaners	410	6.33	5.41	5.72	6.25	6.81	7.97
37-3011	Landscaping and Groundskeeping Workers	220	8.16	5.78	6.69	7.85	8.90	11.39
39-0000	Personal Care and Service	NA	9.79	6.21	7.43	8.98	10.77	13.14
39-1021	First-Line Supervisors/Managers of Personal Service Workers	10	24.97	17.21	21.14	24.01	26.76	38.42
39-3091	Amusement and Recreation Attendants	130	7.56	5.61	6.10	6.90	8.67	10.49
39-5012	Hairdressers, Hairstylists, and Cosmetologists	30	9.39	6.11	7.29	9.50	11.74	12.84
39-9011	Child Care Workers	NA	8.88	7.14	7.93	9.15	10.17	10.79
39-9032	Recreation Workers	NA	8.07	5.84	6.66	7.95	9.45	10.81
41-0000	Sales and Related	2,570	10.06	5.77	6.54	8.54	11.43	15.78
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	NA	11.93	7.27	7.70	8.41	12.36	20.90
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	NA	12.43	9.08	9.96	11.36	12.58	13.32
41-2011	Cashiers	1,310	8.34	5.64	6.20	7.67	10.47	12.44

Navajo County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
41-2022	Parts Salespersons	20	10.64	7.12	8.80	11.07	12.70	13.71
41-2031	Retail Salespersons	470	10.76	5.70	6.46	8.16	10.85	20.01
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Production	110	15.59	6.93	9.49	14.13	19.53	24.54
41-9022	Real Estate Sales Agents	NA	21.36	10.30	21.48	23.29	25.27	26.46
41-9099	Sales and Related Workers, All Other	30	11.09	6.02	7.28	8.89	15.46	20.15
43-0000	Office and Administrative Support	4,970	9.66	5.96	6.91	9.04	11.76	14.29
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	290	13.13	9.22	10.02	11.82	15.33	18.99
43-2011	Switchboard Operators, Inc. Answering Service	NA	7.13	5.67	6.10	6.82	8.31	9.79
43-3011	Bill and Account Collectors	30	10.75	8.01	9.30	11.04	12.54	13.43
43-3021	Billing and Posting Clerks and Machine Operators	120	9.33	7.17	7.63	8.41	10.28	14.13
43-3031	Bookkeeping, Accounting, and Auditing Clerks	230	10.31	6.70	8.75	10.29	12.24	13.62
43-3051	Payroll and Timekeeping Clerks	90	9.12	7.21	7.80	8.84	10.21	11.71
43-3061	Procurement Clerks	10	13.75	11.58	12.45	13.80	15.31	16.32
43-4031	Court, Municipal, and License Clerks	130	12.19	9.13	9.90	11.83	14.58	16.11
43-4051	Customer Service Representatives	NA	8.72	5.96	6.80	8.29	9.91	11.64
43-4061	Eligibility Interviewers, Government Programs	140	10.99	8.96	9.56	10.56	12.22	13.39
43-4071	File Clerks	90	7.20	5.65	6.24	7.31	8.24	8.82
43-4081	Hotel, Motel, and Resort Desk Clerks	180	6.90	5.52	6.08	7.10	7.88	8.35
43-4121	Library Assistants, Clerical	30	7.34	5.64	6.07	6.79	8.77	10.29
43-4151	Order Clerks	20	10.58	7.47	8.50	10.03	12.38	14.09
43-4161	Human Resources Assistants, Ex. Payroll and Timekeeping	60	9.57	7.12	7.80	9.09	10.51	13.50
43-4171	Receptionists and Information Clerks	160	8.06	6.35	7.18	7.93	8.75	10.43
43-4999	All Other Financial, Information, and Record Clerks	20	11.46	7.86	9.77	11.45	13.21	15.32
43-5031	Police, Fire, and Ambulance Dispatchers	50	10.44	8.37	9.18	10.08	11.05	13.92
43-5041	Meter Readers, Utilities	90	13.81	10.75	11.35	12.34	13.34	21.64
43-5052	Postal Service Mail Carriers	40	NA	NA	NA	NA	NA	NA
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	20	NA	NA	NA	NA	NA	NA
43-5071	Shipping, Receiving, and Traffic Clerks	40	10.80	6.80	7.77	9.65	12.97	18.33
43-5081	Stock Clerks and Order Fillers	NA	7.77	5.59	5.93	6.48	7.04	13.61
43-6011	Executive Secretaries and Administrative Assistants	160	12.10	8.20	9.45	11.65	14.40	17.07

Navajo County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-6012	Legal Secretaries	80	12.09	9.52	10.84	12.10	13.30	15.20
43-6014	Secretaries, Ex. Legal, Medical, and Executive	400	10.09	7.14	8.09	9.73	11.99	13.92
43-9021	Data Entry Keyers	60	9.63	7.19	7.72	8.84	10.84	13.99
43-9022	Word Processors and Typists	50	9.56	7.34	8.23	9.51	10.72	12.34
43-9061	Office Clerks, General	740	9.43	5.82	6.71	8.96	12.03	13.20
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	80	12.18	6.91	9.84	12.13	14.41	16.66
45-0000	Farming, Fishing, and Forestry	550	7.77	5.48	5.94	6.70	8.50	12.07
45-2093	Farmworkers, Farm and Ranch Animals	60	6.06	5.32	5.56	5.98	6.39	6.64
45-4021	Fallers	60	6.92	5.68	6.15	6.87	7.71	8.32
45-4022	Logging Equipment Operators	110	11.31	8.29	9.42	10.95	12.49	13.46
47-0000	Construction and Extraction	3,050	13.47	8.08	9.77	12.33	16.72	20.89
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	120	20.11	14.54	16.52	19.53	23.38	27.22
47-2031	Carpenters	410	13.21	10.85	11.57	12.74	14.71	16.67
47-2051	Cement Masons and Concrete Finishers	80	13.53	11.14	11.87	13.09	15.32	16.71
47-2061	Construction Laborers	450	8.94	5.98	7.06	8.48	10.33	12.65
47-2071	Paving, Surfacing, and Tamping Equipment Operators	NA	11.06	6.46	9.22	11.84	13.19	14.00
47-2073	Operating Engineers and Other Construction Equipment Operators	NA	15.28	11.19	12.78	15.08	17.49	20.10
47-2111	Electricians	200	13.41	11.09	11.66	12.59	13.65	18.18
47-2151	Pipelayers	NA	17.91	14.37	17.43	18.79	20.14	20.96
47-2152	Plumbers, Pipefitters, and Steamfitters	110	14.27	11.02	11.85	13.27	16.16	19.82
47-3012	Helpers – Carpenters	200	9.30	8.06	8.82	9.48	10.15	10.55
47-4011	Construction and Building Inspectors	30	16.87	12.51	14.31	16.30	19.23	22.12
47-4051	Highway Maintenance Workers	150	12.01	9.04	10.13	11.75	13.39	16.08
47-4999	All Other Construction Trades and Related Workers	10	NA	NA	NA	NA	NA	NA
49-0000	Installation, Maintenance, and Repair	1,690	13.82	6.79	8.36	12.83	18.58	21.83
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	200	19.56	12.68	15.13	18.27	21.08	28.98
49-3023	Automotive Service Technicians and Mechanics	NA	13.71	10.10	11.48	12.78	15.95	20.02

Navajo County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	110	15.21	11.24	13.36	15.19	16.70	18.26
49-3042	Mobile Heavy Equipment Mechanics, Ex. Engines	NA	18.18	14.33	17.39	18.79	20.21	21.07
49-3093	Tire Repairers and Changers	NA	7.35	5.56	6.17	7.24	8.38	9.80
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	20	15.10	9.61	11.20	15.74	18.88	20.45
49-9031	Home Appliance Repairers	10	11.63	7.20	7.87	12.38	14.86	16.37
49-9042	Maintenance and Repair Workers, General	320	14.16	7.40	8.40	11.97	20.75	24.75
51-0000	Production	1,090	13.61	6.65	8.18	11.14	18.25	23.32
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	50	26.98	12.93	16.53	28.25	34.30	44.44
51-6011	Laundry and Dry-Cleaning Workers	90	6.81	5.43	5.82	6.46	7.57	8.49
51-8031	Water and Liquid Waste Treatment Plant and System Operators	120	12.81	9.41	10.75	12.34	14.70	17.30
51-8099	Plant and System Operators, All Other	150	14.18	7.52	8.80	12.13	19.15	25.06
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	30	15.27	7.81	9.93	17.87	19.69	20.77
51-9198	Helpers – Production Workers		8.53	5.91	6.77	7.74	9.75	12.46
53-0000	Transportation and Material Moving	1,650	10.68	5.80	6.64	9.56	12.31	16.68
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	10	14.36	8.34	9.46	10.81	14.96	31.94
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle	20	20.49	10.08	18.33	21.01	23.96	26.65
53-3022	Bus Drivers, School	160	8.75	6.03	6.99	9.14	10.18	11.00
53-3032	Truck Drivers, Heavy and Tractor-Trailer	410	14.65	9.43	10.63	12.10	14.38	28.45
53-3033	Truck Drivers, Light or Delivery Services	140	12.20	6.79	8.23	10.75	16.16	20.24
53-6031	Service Station Attendants	NA	6.18	5.32	5.58	5.99	6.41	6.66
53-7032	Excavating and Loading Machine and Dragline Operators	NA	14.32	9.59	11.53	12.85	16.21	23.03
53-7051	Industrial Truck and Tractor Operators	40	12.20	7.54	8.75	11.04	15.46	19.14
53-7061	Cleaners of Vehicles and Equipment	70	7.03	5.69	6.38	7.22	7.90	8.32
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	430	8.16	5.63	6.16	7.57	10.07	11.68

Navajo County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
53-7063	Machine Feeders and Offbearers	30	8.56	6.44	7.35	8.32	9.97	10.99
53-7064	Packers and Packagers, Hand	10	7.20	5.80	6.59	7.46	8.12	8.51

Notes:

1 Annual wages were reported for certain full-time jobs (e.g., teachers) with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.

NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Santa Cruz County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	8,450	12.90	5.91	6.88	10.45	16.57	23.10
11-0000	Management	510	29.41	13.81	18.83	25.47	35.30	57.53
11-1021	General and Operations Managers	190	34.18	15.44	20.87	27.41	42.36	70.00
11-2022	Sales Managers	20	34.41	21.45	26.00	29.94	33.85	63.21
11-3011	Administrative Services Managers	20	18.78	10.16	17.51	19.08	20.63	28.52
11-3031	Financial Managers	50	28.95	14.84	16.85	24.33	31.22	63.36
11-3040	Human Resources Managers	10	20.89	12.50	14.42	17.12	26.38	35.40
11-3051	Industrial Production Managers	20	29.54	17.56	27.44	30.67	33.90	40.65
11-3061	Purchasing Managers	10	20.88	17.93	18.90	20.53	22.62	25.56
11-3071	Transportation, Storage, and Distribution Managers	NA	21.64	15.00	17.11	22.96	25.32	26.74
11-9199	Managers, All Other	40	NA	NA	NA	NA	NA	NA
13-0000	Business and Financial Operations	390	19.37	13.11	15.41	18.61	21.88	26.35
13-1023	Purchasing Agents, Ex. Wholesale, Retail, and Farm Products	20	19.34	10.88	12.48	15.23	20.71	46.78
13-1041	Compliance Officers, Ex. Agriculture, Construction, Health and Safety, and Transportation	240	NA	NA	NA	NA	NA	NA
13-1111	Management Analysts	10	13.57	6.12	13.86	14.91	15.95	16.58
13-1199	Business Operations Specialists, All Other	20	20.03	12.13	14.03	16.65	23.90	30.88
13-2011	Accountants and Auditors	60	19.12	14.16	15.25	17.22	21.97	26.58
13-2081	Tax Examiners, Collectors, and Revenue Agents	20	NA	NA	NA	NA	NA	NA
15-0000	Computer and Mathematical	40	22.58	14.80	18.23	21.77	26.74	32.65
19-0000	Life, Physical, and Social Science	70	18.24	11.53	13.08	16.53	21.21	26.45
19-1010	Agricultural and Food Scientists	20	NA	NA	NA	NA	NA	NA
27-0000	Arts, Design, Entertainment, Sports, and Media	20	15.84	7.81	9.07	16.62	21.38	24.95
29-0000	Healthcare Practitioners and Technical	20	20.93	14.28	16.53	19.59	24.37	33.84

Santa Cruz County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
33-0000	Protective Service	700	18.14	9.16	15.51	18.52	20.85	25.59
33-1012	First-Line Supervisors/Managers of Police and Detectives	80						
33-3021	Detectives and Criminal Investigators	40	23.10	17.79	19.38	22.38	26.81	31.28
33-3051	Police and Sheriff's Patrol Officers	480						
33-9032	Security Guards	50	7.99	5.91	6.79	7.97	9.40	10.36
35-0000	Food Preparation and Serving-Related	470	7.27	5.54	6.01	6.80	8.15	9.86
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	NA	10.69	8.86	9.25	9.91	10.57	15.76
35-3011	Bartenders	10	6.50	5.38	5.73	6.31	7.19	8.23
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	NA	6.19	5.33	5.60	6.06	6.51	7.72
35-3031	Waiters and Waitresses	NA	5.93	5.42	5.67	6.09	6.50	6.76
37-0000	Building and Grounds Cleaning and Maintenance	500	7.96	5.57	5.96	6.61	8.88	11.11
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	40	14.82	8.47	9.50	11.24	13.74	31.72
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	180	7.70	5.63	6.09	6.86	9.40	11.05
37-2012	Maids and Housekeeping Cleaners	200	5.99	5.46	5.71	6.14	6.57	6.85
37-3011	Landscaping and Groundskeeping Workers	80	9.61	5.72	6.37	8.49	9.88	10.88
39-0000	Personal Care and Service	110	7.26	5.61	6.13	7.07	8.45	9.76
41-0000	Sales and Related	1,070	10.10	5.58	6.02	6.78	10.43	20.51
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	110	14.25	7.64	9.08	12.18	18.95	23.35
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	NA	24.23	13.93	22.12	24.17	26.21	30.55
41-2011	Cashiers	260	6.67	5.47	5.82	6.41	7.24	8.26
41-2031	Retail Salespersons	460	6.77	5.51	5.82	6.34	6.88	9.12

Santa Cruz County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	40	18.98	9.18	10.75	15.32	27.14	33.20
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products	100	21.34	9.25	12.14	16.70	25.77	43.96
43-0000	Office and Administrative Support	1,890	10.81	6.25	7.48	10.01	13.08	16.81
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	240	15.03	9.19	10.49	12.91	19.02	24.98
43-3021	Billing and Posting Clerks and Machine Operators	60	10.54	6.27	7.29	8.54	13.60	16.41
43-3031	Bookkeeping, Accounting, and Auditing Clerks	90	11.57	7.15	8.85	11.34	13.31	16.21
43-4051	Customer Service Representatives	30	12.86	9.12	9.89	11.92	15.62	18.17
43-4061	Eligibility Interviewers, Government Programs	20	NA	NA	NA	NA	NA	NA
43-4071	File Clerks	20	6.63	5.55	5.87	6.41	7.00	9.12
43-4081	Hotel, Motel, and Resort Desk Clerks	80	6.78	5.56	6.00	6.72	7.73	8.37
43-4151	Order Clerks	90	8.38	6.97	7.30	7.84	8.38	10.66
43-4171	Receptionists and Information Clerks	40	7.79	5.66	6.29	7.82	9.47	10.38
43-5032	Dispatchers, Ex. Police, Fire, and Ambulance	30	10.00	5.99	6.91	8.42	12.65	16.89
43-5052	Postal Service Mail Carriers	30	NA	NA	NA	NA	NA	NA
43-5071	Shipping, Receiving, and Traffic Clerks	360	9.96	6.17	7.42	11.05	12.36	13.14
43-5081	Stock Clerks and Order Fillers	90	8.72	5.55	5.94	6.60	12.19	15.95
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	20	9.81	5.67	6.21	7.85	14.36	16.23
43-6011	Executive Secretaries and Administrative Assistants	110	13.95	9.16	11.67	13.78	16.59	19.17
43-6014	Secretaries, Ex. Legal, Medical, and Executive	160	9.67	6.16	7.19	8.26	12.29	15.63
43-9021	Data Entry Keyers	20	10.13	8.30	9.25	10.16	11.05	12.55
43-9022	Word Processors and Typists	10	10.68	8.92	9.54	10.59	12.01	12.90
43-9061	Office Clerks, General	160	7.79	5.85	6.60	7.55	8.40	9.91
45-2011	Agricultural Inspectors	10	NA	NA	NA	NA	NA	NA
47-0000	Construction and Extraction	510	13.15	7.61	9.68	11.90	13.77	20.85
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	30	21.84	14.26	15.62	19.35	28.91	33.81
47-2031	Carpenters	190	12.98	9.60	10.77	12.31	13.74	19.20

Santa Cruz County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
47-2061	Construction Laborers	40	7.20	5.46	5.90	6.62	8.87	10.19
47-4051	Highway Maintenance Workers	10	NA	NA	NA	NA	NA	NA
49-0000	Installation, Maintenance, and Repair	270	13.39	7.20	9.36	12.35	16.61	21.44
49-3023	Automotive Service Technicians and Mechanics	40	14.28	11.22	12.00	13.30	16.75	19.96
49-9042	Maintenance and Repair Workers, General	110	11.40	7.53	8.90	10.50	13.68	16.46
51-0000	Production	350	10.57	5.71	6.39	8.08	12.80	20.17
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	40	18.23	9.89	11.23	13.23	28.35	32.04
51-8031	Water and Liquid Waste Treatment Plant and System Operators	20	15.60	12.12	14.05	15.64	17.32	19.78
53-0000	Transportation and Material Moving	860	8.73	5.58	6.09	7.08	11.03	13.45
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	20	15.60	7.37	8.30	15.48	20.18	28.72
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle	10	17.56	8.92	12.55	18.42	21.09	26.05
53-3032	Truck Drivers, Heavy and Tractor-Trailer	150	11.98	9.40	10.76	11.88	13.03	14.77
53-3033	Truck Drivers, Light or Delivery Services	80	9.56	5.93	6.83	10.17	12.22	13.16
53-7051	Industrial Truck and Tractor Operators	40	11.05	6.47	8.20	11.09	13.55	16.21
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	260	6.84	5.44	5.81	6.42	7.51	8.49
53-7064	Packers and Packagers, Hand	90	7.41	5.40	5.74	6.33	7.92	11.03

Notes:

- 1 Annual wages were reported for certain full-time jobs (e.g., teachers) with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.
 NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Yavapai County

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	49,380	12.39	5.93	6.96	10.06	15.35	21.03
11-0000	Management	2,710	24.43	11.34	15.53	21.65	30.40	41.87
11-1011	Chief Executives	170	37.67	18.04	24.05	35.20	46.36	70.01
11-1021	General and Operations Managers	1,030	25.91	11.91	16.63	22.57	32.39	44.96
11-1031	Legislators	NA	6.52	5.51	5.77	6.19	6.62	6.88
11-2021	Marketing Managers	30	31.51	16.67	22.68	31.20	40.31	46.75
11-2022	Sales Managers	110	25.76	14.33	15.68	19.16	32.28	47.89
11-3011	Administrative Services Managers	120	19.07	11.44	14.55	17.83	22.45	27.48
11-3021	Computer and Information Systems Managers	20	25.09	18.46	20.72	24.75	29.07	33.62
11-3031	Financial Managers	130	26.45	11.57	16.63	23.23	33.04	45.25
11-3051	Industrial Production Managers	40	27.97	15.49	18.81	27.43	38.21	42.22
11-3061	Purchasing Managers	40	22.62	13.92	16.35	22.09	27.93	34.54
11-3071	Transportation, Storage, and Distribution Managers	30	27.33	15.98	23.10	25.75	31.36	42.05
11-9021	Construction Managers	40	29.32	17.92	20.41	25.96	35.51	42.51
11-9031	Education Administrators, Preschool and Child Care Center/Program	NA	22.17	17.91	19.81	22.89	25.57	27.18
11-9032	Education Administrators, Elementary and Secondary School	40	52,671	34,344	43,440	53,878	63,517	69,995
11-9033	Education Administrators, Postsecondary	40	26.17	13.75	20.01	26.20	32.79	38.04
11-9041	Engineering Managers	50	31.76	24.14	27.86	31.40	35.47	41.37
11-9051	Food Service Managers	NA	12.83	7.47	10.86	13.37	15.62	16.82
11-9081	Lodging Managers	10	12.21	5.68	6.19	10.99	12.80	36.69
11-9111	Medical and Health Services Managers	50	28.35	17.09	23.13	29.33	33.76	41.07
11-9121	Natural Sciences Managers	10	27.41	14.48	15.94	19.96	38.78	53.22
11-9131	Postmasters and Mail Superintendents	20	NA	NA	NA	NA	NA	NA
11-9141	Property, Real Estate, and Community Association Managers	30	22.66	10.23	12.82	19.25	24.46	28.09
11-9151	Social and Community Service Managers	40	19.95	14.83	16.94	19.84	22.95	26.44
11-9199	Managers, All Other	160	22.82	13.69	16.48	21.05	28.41	35.80

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
13-0000	Business and Financial Operations	830	17.26	7.15	11.27	16.08	21.40	27.90
13-1022	Wholesale and Retail Buyers, Ex. Farm Products	40	15.74	11.11	12.13	13.93	19.52	22.14
13-1023	Purchasing Agents, Ex. Wholesale, Retail, and Farm Products	30	17.26	9.97	11.83	17.72	22.82	25.48
13-1041	Compliance Officers, Ex. Agriculture, Construction, Health and Safety, and Transportation	40	18.90	12.73	14.86	17.21	24.29	26.62
13-1051	Cost Estimators	50	17.07	9.24	10.29	15.54	21.69	29.65
13-1071	Employment, Recruitment, and Placement Specialists	50	14.26	11.19	11.92	13.14	15.19	18.91
13-1073	Training and Development Specialists	40	12.89	5.93	6.79	12.35	16.52	21.46
13-1111	Management Analysts	NA	12.37	5.57	6.03	6.82	18.30	24.96
13-1199	Business Operations Specialists, All Other	120	18.97	10.44	13.50	18.70	21.48	28.67
13-2011	Accountants and Auditors	150	17.87	7.40	12.28	16.01	21.45	28.74
13-2031	Budget Analysts	20	17.60	12.03	13.71	16.54	20.23	26.42
13-2041	Credit Analysts	10	25.58	9.40	10.75	21.23	43.76	50.81
13-2072	Loan Officers	110	22.10	9.74	16.37	20.98	26.45	38.14
13-2081	Tax Examiners, Collectors, and Revenue Agents	10	19.56	11.33	13.74	16.73	27.38	31.66
15-0000	Computer and Mathematical	280	33.50	11.63	15.76	23.20	54.81	70.01
15-1021	Computer Programmers	20	22.83	11.69	14.76	23.94	30.35	34.30
15-1032	Computer Software Engineers, Systems Software	NA	41.77	16.55	38.01	48.77	53.31	56.03
15-1041	Computer Support Specialists	50	15.59	9.62	10.91	14.30	19.14	23.09
15-1051	Computer Systems Analysts	20	24.23	16.22	19.08	22.41	26.88	34.20
15-1061	Database Administrators	20	17.99	7.93	12.81	18.23	24.23	26.50
15-1071	Network and Computer Systems Administrators	30	19.65	14.58	15.71	18.19	23.12	27.07
15-1081	Network Systems and Data Communications Analysts		17.39	10.44	12.34	15.96	21.02	27.97
17-0000	Architecture and Engineering	440	20.73	9.37	13.78	19.48	25.89	33.22
17-1012	Landscape Architects	20	12.99	5.69	6.18	7.00	20.12	24.33
17-1022	Surveyors	10	17.19	10.25	12.55	17.79	20.51	22.14
17-2051	Civil Engineers	60	26.04	18.97	22.73	26.28	30.36	33.52
17-3011	Architectural and Civil Drafters	30	11.02	5.65	6.07	6.78	18.51	20.43
17-3022	Civil Engineering Technicians	20	17.10	11.66	13.79	16.45	20.37	24.10
17-3031	Surveying and Mapping Technicians	NA	17.07	11.48	13.03	16.91	20.85	24.55
17-3099	All Other Drafters, Engineering, and Mapping Technicians	10	18.86	7.65	12.75	21.65	24.85	26.58

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
19-0000	Life, Physical, and Social Science	280	18.21	11.46	14.17	17.20	21.63	26.67
19-1032	Foresters	10	19.06	11.67	13.04	19.25	22.94	27.25
19-2041	Environmental Scientists and Specialists, Inc. Health	NA	19.96	14.07	15.41	17.65	24.39	30.53
19-3031	Clinical, Counseling, and School Psychologists	50	18.30	14.14	15.00	16.44	20.57	25.41
19-4093	Forest and Conservation Technicians	40						
21-0000	Community and Social Services	620	13.76	8.08	10.05	13.23	16.66	20.75
21-1011	Substance Abuse and Behavioral Disorder Counselors	NA	16.25	10.38	13.65	15.85	18.61	23.74
21-1012	Educational, Vocational, and School Counselors	110	14.91	8.20	10.50	15.44	18.25	20.92
21-1021	Child, Family, and School Social Workers	150	12.15	8.65	9.89	11.86	13.86	17.33
21-1022	Medical and Public Health Social Workers	20	15.05	10.10	12.12	14.32	16.25	17.49
21-1093	Social and Human Service Assistants	110	9.87	7.36	7.90	8.80	11.34	13.47
21-9099	All Other Counselors, Social and Religious Workers	10	20.81	11.49	15.65	22.87	25.42	26.95
23-0000	Legal	NA	20.40	11.58	13.22	18.51	22.99	34.52
23-1011	Lawyers	NA	26.41	18.21	19.60	21.92	30.56	41.95
23-2011	Paralegals and Legal Assistants	NA	13.16	11.44	12.01	12.95	13.94	16.15
23-2092	Law Clerks	NA	11.63	9.35	10.08	11.34	13.12	14.57
23-2093	Title Examiners, Abstractors, and Searchers	NA	17.15	9.98	12.38	18.29	21.25	24.75
23-9099	All Other Legal and Related Workers	20	18.51	14.30	15.00	16.17	17.53	31.54
25-0000	Education, Training, and Library	2,510	14.50	7.15	8.78	12.99	17.15	23.09
25-2011	Preschool Teachers, Ex. Special Education	NA	12.59	6.67	10.11	12.60	15.12	17.32
25-2012	Kindergarten Teachers, Ex. Special Education	40	28,286	17,648	23,712	27,966	33,474	38,561
25-2021	Elementary School Teachers, Ex. Special Education	370	29,714	22,967	25,128	28,724	34,506	40,581
25-2031	Secondary School Teachers, Ex. Special and Vocational Education	150	30,129	22,182	25,542	29,854	34,266	39,940
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	50	29,317	21,727	24,527	28,425	34,202	39,334
25-3999	All Other Teachers, Primary, Secondary, and Adult	70	22,199	17,763	18,721	20,335	21,948	32,825
25-4010	Archivists, Curators, and Museum Technicians	20	13.49	9.16	10.15	12.51	15.37	17.79

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
25-4021	Librarians	80	18.12	11.48	14.72	18.00	20.86	24.55
25-4031	Library Technicians	90	11.77	6.68	8.70	11.86	15.11	16.81
25-9031	Instructional Coordinators	30	19.89	17.23	18.63	20.28	21.92	24.56
25-9041	Teacher Assistants	550	15,636	12,349	14,175	15,808	17,264	18,271
27-0000	Arts, Design, Entertainment, Sports, and Media	450	13.68	6.50	8.82	11.14	17.75	24.09
27-1023	Floral Designers	80	9.12	6.11	8.77	9.62	10.41	10.95
27-1024	Graphic Designers	30	12.31	8.15	9.34	11.68	14.41	18.57
27-1026	Merchandise Displayers and Window Trimmers	NA	8.26	7.09	7.48	8.13	8.98	10.04
27-2012	Producers and Directors	NA	26,476	22,778	23,793	25,468	27,142	28,589
27-3010	Announcers	50	7.85	5.72	6.28	7.47	9.70	10.76
27-3043	Writers and Authors	10	20.38	7.12	11.16	14.29	28.67	57.85
27-4011	Audio and Video Equipment Technicians	20	7.35	5.65	6.06	6.76	9.05	10.26
27-4012	Broadcast Technicians	20	8.34	5.52	6.08	7.97	9.93	13.57
29-0000	Healthcare Practitioners and Technical	1,920	22.69	8.61	13.52	18.13	25.87	44.78
29-1011	Chiropractors	60	47.54	36.39	39.22	46.06	57.85	57.86
29-1051	Pharmacists	60	34.80	28.82	31.07	34.83	39.80	43.04
29-1062	Family and General Practitioners	40	55.04	45.06	48.50	54.12	57.86	72.97
29-1071	Physician Assistants	NA	23.51	14.29	15.48	26.22	31.12	33.56
29-1111	Registered Nurses	770	19.44	14.44	16.13	18.77	21.70	25.90
29-1122	Occupational Therapists	30	26.47	12.92	19.80	24.96	33.35	41.86
29-1123	Physical Therapists	40	27.96	19.92	23.46	28.09	32.34	34.99
29-1125	Recreational Therapists	40	11.52	6.19	8.95	10.75	13.65	18.29
29-1127	Speech-Language Pathologists	40	19.42	11.23	15.46	20.76	24.14	26.28
29-1131	Veterinarians	40	33.05	24.24	27.10	30.80	34.41	45.17
29-2034	Radiologic Technologists and Technicians	NA	16.52	14.13	14.97	16.36	17.91	20.75
29-2052	Pharmacy Technicians	50	10.46	7.63	8.53	10.88	12.28	13.20
29-2056	Veterinary Technologists and Technicians	60	8.93	6.33	7.49	9.02	10.45	11.76
29-2061	Licensed Practical and Licensed Vocational Nurses	130	14.64	10.85	12.33	14.63	16.62	19.19
29-2071	Medical Records and Health Information Technicians	60	10.97	8.03	9.21	10.31	11.92	15.72

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
31-0000	Healthcare Support	1,070	9.14	6.72	7.36	8.23	10.46	13.15
31-1011	Home Health Aides	240	8.14	6.12	7.04	7.80	8.58	11.98
31-1012	Nursing Aides, Orderlies, and Attendants	480	8.24	6.85	7.31	7.97	8.73	10.69
31-2021	Physical Therapist Assistants	10	15.27	12.04	13.71	15.24	16.68	19.04
31-9092	Medical Assistants	170	11.03	7.44	8.44	10.73	12.84	15.38
31-9095	Pharmacy Aides	NA	8.95	5.61	6.30	9.43	11.03	12.59
33-0000	Protective Service	1,850	11.88	5.73	6.33	8.59	16.36	20.90
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	NA	21.49	16.22	18.44	20.76	24.07	27.23
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	40	14.78	7.85	8.96	13.63	18.98	23.87
33-3021	Detectives and Criminal Investigators	NA	18.62	14.63	15.63	17.30	20.23	22.29
33-9011	Animal Control Workers	NA	11.26	9.33	10.09	11.36	12.69	13.48
33-9032	Security Guards	NA	6.53	5.54	5.84	6.34	6.83	8.14
33-9091	Crossing Guards	60	7.10	5.65	6.40	7.35	8.01	8.40
33-9099	Protective Service Workers, All Other	130	11.17	6.30	7.55	8.79	15.42	16.95
35-0000	Food Preparation and Serving-Related	6,860	6.59	5.45	5.78	6.32	6.96	8.28
35-1011	Chefs and Head Cooks	80	10.89	6.03	8.53	10.34	12.65	15.50
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers	270	8.77	6.08	7.04	8.04	10.68	12.71
35-2011	Cooks, Fast Food	NA	7.41	6.50	7.01	7.52	8.02	8.32
35-2012	Cooks, Institution and Cafeteria	100	8.56	6.15	7.09	8.08	9.72	11.71
35-2014	Cooks, Restaurant	380	7.98	5.80	6.75	7.56	8.36	11.89
35-2015	Cooks, Short Order	NA	8.96	5.76	6.62	8.15	12.05	13.22
35-2021	Food Preparation Workers	400	6.94	5.58	6.04	6.81	7.93	8.62
35-3011	Bartenders	NA	5.99	5.50	5.75	6.17	6.59	6.84
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	960	6.53	5.39	5.74	6.33	7.20	8.20
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	70	8.28	5.66	6.43	7.72	10.33	12.29
35-3031	Waiters and Waitresses	1,810	6.04	5.39	5.65	6.10	6.55	6.95

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
35-3041	Food Servers, Non-restaurant	NA	5.99	5.35	5.61	6.04	6.46	6.72
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	400	5.94	5.36	5.62	6.04	6.46	6.72
35-9021	Dishwashers	540	6.05	5.40	5.66	6.11	6.55	6.92
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	220	6.33	5.44	5.75	6.27	6.80	7.91
37-0000	Building and Grounds Cleaning and Maintenance	1,950	8.08	5.67	6.27	7.38	9.15	11.91
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	80	12.67	6.79	8.50	11.60	14.49	22.80
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	50	13.20	9.30	11.43	13.12	15.37	16.88
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	890	7.39	5.63	6.11	6.92	8.38	10.17
37-2012	Maids and Housekeeping Cleaners	450	6.60	5.49	5.86	6.48	7.41	8.30
37-3011	Landscaping and Groundskeeping Workers	420	9.06	6.49	7.41	8.54	10.43	12.61
37-9099	All Other Building and Grounds Cleaning and Maintenance Workers	10	11.69	7.60	8.48	11.49	13.09	18.76
39-0000	Personal Care and Service	1,490	8.98	5.74	6.48	7.85	10.42	14.88
39-1021	First-Line Supervisors/Managers of Personal Service Workers	20	12.58	9.22	9.87	10.93	15.31	18.95
39-2021	Non-farm Animal Caretakers	60	7.85	5.66	6.24	7.53	9.63	10.62
39-3031	Ushers, Lobby Attendants, and Ticket Takers	NA	7.23	5.40	5.78	6.40	7.56	9.71
39-3091	Amusement and Recreation Attendants	NA	7.38	6.46	6.99	7.50	8.02	8.33
39-4021	Funeral Attendants	NA	7.30	5.62	6.32	7.26	8.06	8.85
39-5012	Hairdressers, Hairstylists, and Cosmetologists	110	8.07	5.94	6.89	7.79	8.69	11.27
39-6021	Tour Guides and Escorts	30	10.03	6.16	8.90	10.25	11.88	13.26
39-9011	Child Care Workers	NA	6.29	5.38	5.69	6.21	6.72	7.86
39-9021	Personal and Home Care Aides	NA	7.20	5.62	6.03	6.72	8.05	10.42
39-9031	Fitness Trainers and Aerobics Instructors	NA	10.46	6.91	7.58	8.64	12.08	18.39
39-9032	Recreation Workers	NA	10.71	6.29	7.49	9.50	14.19	16.42

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
41-0000	Sales and Related	5,350	9.99	5.70	6.42	8.27	11.90	16.40
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	600	13.45	7.39	8.39	12.49	16.54	22.90
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	110	12.73	8.81	9.35	10.27	15.40	19.42
41-2011	Cashiers	1,890	8.04	5.51	5.99	6.81	10.11	12.89
41-2021	Counter and Rental Clerks	NA	7.90	5.73	6.40	7.55	9.15	10.90
41-2022	Parts Salespersons	100	11.87	9.00	9.88	11.54	13.55	16.17
41-2031	Retail Salespersons	1,850	9.29	5.64	6.26	7.59	9.84	15.48
41-3011	Advertising Sales Agents	40	10.47	6.31	8.19	10.10	12.60	15.60
41-3021	Insurance Sales Agents	40	15.65	10.99	11.74	12.91	15.65	25.60
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	30	14.82	9.68	11.09	12.53	16.48	20.20
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products	310	14.22	8.75	9.70	12.97	16.85	22.11
41-9041	Telemarketers	40	10.67	8.94	9.39	10.13	10.87	13.14
41-9099	Sales and Related Workers, All Other	60	13.13	6.20	7.58	10.98	17.66	22.30
43-0000	Office and Administrative Support	7,620	10.47	6.24	7.53	9.65	12.76	16.41
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	490	15.07	9.34	11.01	14.65	17.87	21.52
43-2011	Switchboard Operators, Inc. Answering Service	60	7.63	5.49	5.95	6.70	9.12	11.67
43-3011	Bill and Account Collectors	50	10.83	7.68	8.86	10.93	12.71	14.02
43-3021	Billing and Posting Clerks and Machine Operators	240	11.08	7.52	8.59	10.83	13.28	15.68
43-3031	Bookkeeping, Accounting, and Auditing Clerks	730	11.36	7.45	8.89	10.69	13.91	16.23
43-3051	Payroll and Timekeeping Clerks	80	11.19	7.69	8.91	10.68	13.16	15.99
43-3061	Procurement Clerks	20	11.35	7.44	8.10	10.03	13.33	16.55
43-3071	Tellers	NA	9.49	7.61	8.53	9.56	10.57	11.38
43-4031	Court, Municipal, and License Clerks	60	11.68	8.62	9.55	11.20	13.30	16.17
43-4051	Customer Service Representatives	360	9.04	5.81	6.48	8.20	10.65	15.06
43-4071	File Clerks	100	6.72	5.59	5.92	6.48	7.12	9.33
43-4081	Hotel, Motel, and Resort Desk Clerks	70	6.64	5.58	6.00	6.71	7.48	8.11
43-4131	Loan Interviewers and Clerks	NA	12.52	9.42	10.82	12.13	13.45	16.87
43-4141	New Accounts Clerks	50	9.28	5.70	6.52	9.91	11.17	12.54

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-4151	Order Clerks	50	11.03	7.12	8.31	10.36	12.46	14.58
43-4161	Human Resources Assistants, Ex. Payroll and Timekeeping	80	10.92	7.70	8.83	10.23	12.87	16.05
43-4171	Receptionists and Information Clerks	460	8.39	6.59	7.34	8.15	9.33	10.74
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	40	6.82	5.68	6.13	6.88	7.84	8.46
43-5021	Couriers and Messengers	NA	7.12	5.72	6.24	6.94	7.85	8.48
43-5031	Police, Fire, and Ambulance Dispatchers	NA	8.76	5.73	6.26	7.49	10.80	14.37
43-5032	Dispatchers, Ex. Police, Fire, and Ambulance	60	13.94	8.57	9.99	13.45	18.44	20.45
43-5041	Meter Readers, Utilities	60	10.01	5.79	6.40	9.76	12.85	16.15
43-5051	Postal Service Clerks	30	NA	NA	NA	NA	NA	NA
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	10	NA	NA	NA	NA	NA	NA
43-5061	Production, Planning, and Expediting Clerks	40	13.41	7.11	8.00	12.70	16.93	21.13
43-5071	Shipping, Receiving, and Traffic Clerks	280	9.73	6.53	7.45	8.54	11.52	15.34
43-5081	Stock Clerks and Order Fillers	490	9.93	5.77	6.39	7.90	13.06	18.38
43-6011	Executive Secretaries and Administrative Assistants	460	12.49	7.82	9.71	12.11	14.52	17.90
43-6012	Legal Secretaries	190	10.97	7.67	8.57	10.74	13.27	15.34
43-6013	Medical Secretaries	130	8.75	6.06	7.14	8.98	10.44	11.32
43-6014	Secretaries, Ex. Legal, Medical, and Executive	570	10.37	7.05	8.58	10.07	12.07	13.66
43-9011	Computer Operators	NA	11.50	8.10	9.16	10.70	13.31	16.55
43-9021	Data Entry Keyers	40	9.35	6.61	8.20	9.57	10.58	11.44
43-9022	Word Processors and Typists	70	9.46	6.17	7.47	9.64	11.38	12.94
43-9041	Insurance Claims and Policy Processing Clerks	NA	9.69	6.95	7.24	7.74	8.23	15.74
43-9051	Mail Clerks and Mail Machine Operators, Ex. Postal Service	20	9.45	7.18	7.84	8.83	10.81	13.10
43-9061	Office Clerks, General	1,210	9.01	5.83	6.64	8.19	10.15	14.92
43-9071	Office Machine Operators, Ex. Computer	20	11.26	7.54	8.45	10.44	14.65	16.14
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	190	12.08	6.30	8.51	11.79	14.77	19.10
45-0000	Farming, Fishing, and Forestry	70	9.34	6.07	7.65	9.55	10.67	12.49
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	20	9.74	7.27	7.89	9.26	11.11	13.43
45-2093	Farmworkers, Farm and Ranch Animals	30	9.25	5.93	7.36	9.52	10.52	11.12

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
47-0000	Construction and Extraction	5,210	13.78	8.17	10.31	13.48	16.93	20.14
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	620	18.68	14.85	17.38	18.95	20.54	21.49
47-2021	Brickmasons and Blockmasons	50	14.59	11.03	12.32	14.30	16.81	19.47
47-2031	Carpenters	230	15.18	9.77	12.19	14.98	17.07	21.19
47-2051	Cement Masons and Concrete Finishers	NA	15.24	9.90	13.70	15.63	17.86	20.08
47-2061	Construction Laborers	650	10.47	7.07	8.64	9.92	12.49	15.37
47-2071	Paving, Surfacing, and Tamping Equipment Operators	60	14.38	11.45	12.26	13.61	16.29	19.41
47-2073	Operating Engineers and Other Construction Equipment Operators	200	15.33	10.15	12.19	14.59	16.77	21.13
47-2081	Drywall and Ceiling Tile Installers	430	13.90	9.69	12.51	14.52	15.90	16.73
47-2082	Tapers	190	12.61	9.12	10.93	12.45	14.23	16.15
47-2111	Electricians	160	17.85	9.65	14.47	17.92	20.32	28.92
47-2141	Painters, Construction and Maintenance	140	11.60	6.97	10.51	12.18	13.38	14.45
47-2151	Pipelayers	NA	12.43	9.46	10.42	12.33	14.43	16.18
47-2152	Plumbers, Pipefitters, and Steamfitters	NA	15.37	9.66	11.83	14.86	17.80	23.54
47-2161	Plasterers and Stucco Masons	130	13.12	7.85	9.65	12.61	15.90	19.51
47-2181	Roofers	90	13.12	9.16	10.09	13.52	15.49	16.67
47-2211	Sheet Metal Workers	NA	10.20	7.20	7.89	10.54	12.22	13.23
47-3012	Helpers – Carpenters	NA	9.75	7.41	8.28	9.68	11.11	12.71
47-3014	Helpers – Painters, Paperhangers, Plasterers, and Stucco Masons	170	9.58	5.74	6.64	10.16	11.85	12.90
47-3015	Helpers – Pipelayers, Plumbers, Pipefitters, and Steamfitters	NA	11.97	7.42	8.49	9.95	17.84	20.57
47-4051	Highway Maintenance Workers	60	10.92	8.53	9.42	10.78	12.33	13.45
47-4999	All Other Construction Trades and Related Workers	10	13.04	10.06	11.26	13.05	15.10	16.35
47-5051	Rock Splitters, Quarry	220	12.27	11.26	11.70	12.43	13.17	13.64
47-5081	Helpers – Extraction Workers	40	10.28	9.13	9.54	10.22	10.91	12.09
49-0000	Installation, Maintenance, and Repair	1,960	15.62	8.14	10.98	15.31	19.86	23.92
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	160	22.77	14.21	18.72	23.10	26.45	31.36
49-2011	Computer, Automated Teller, and Office Machine Repairers	NA	13.13	10.03	11.38	12.49	13.61	19.26

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
49-3023	Automotive Service Technicians and Mechanics	470	17.18	11.16	12.69	15.99	21.63	25.58
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	80	13.65	9.45	10.84	13.96	15.68	16.71
49-3042	Mobile Heavy Equipment Mechanics, Ex. Engines	NA	18.10	14.70	17.40	18.76	20.13	20.95
49-3092	Recreational Vehicle Service Technicians	NA	12.25	8.31	9.81	11.61	14.04	17.82
49-3093	Tire Repairers and Changers	50	8.85	6.97	7.76	8.91	10.10	10.88
49-9012	Control and Valve Installers and Repairers, Ex. Mechanical Door	20	13.61	8.86	9.93	13.90	17.07	19.52
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	20	14.94	9.34	11.43	15.11	18.70	20.74
49-9031	Home Appliance Repairers	20	13.66	9.44	11.82	13.53	16.16	19.11
49-9041	Industrial Machinery Mechanics	30	17.99	14.83	17.15	18.49	19.99	20.90
49-9042	Maintenance and Repair Workers, General	400	10.35	7.10	7.80	9.60	12.17	15.04
49-9043	Maintenance Workers, Machinery	NA	17.90	14.52	16.97	18.48	20.01	20.93
49-9098	Helpers – Installation, Maintenance, and Repair Workers	40	8.99	5.97	7.48	9.11	10.29	11.73
49-9099	Installation, Maintenance, and Repair Workers, All Other	NA	12.02	9.28	10.68	12.19	13.48	15.07
51-0000	Production	3,310	11.93	6.93	8.28	10.53	14.90	19.17
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	240	18.50	11.20	13.77	17.12	22.98	26.55
51-3011	Bakers	NA	9.05	5.81	6.55	9.46	11.19	12.73
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	70	9.66	5.98	6.88	8.43	12.59	14.41
51-4041	Machinists	90	14.25	8.85	10.18	12.96	16.72	21.87
51-4121	Welders, Cutters, Solderers, and Brazers	50	12.08	9.16	9.87	11.24	14.04	16.30
51-5021	Job Printers	NA	8.77	5.68	6.49	9.09	10.44	12.33
51-5022	Prepress Technicians and Workers	40	12.58	8.30	9.67	12.12	15.45	17.41
51-5023	Printing Machine Operators	50	13.08	9.05	10.01	12.20	15.89	19.39
51-6011	Laundry and Dry-Cleaning Workers	40	8.29	5.68	6.23	7.41	11.23	12.84
51-6021	Pressers, Textile, Garment, and Related Materials	40	8.20	6.13	7.18	8.30	9.62	10.49
51-6031	Sewing Machine Operators	30	8.83	7.20	7.75	8.80	10.02	10.75
51-7011	Cabinetmakers and Bench Carpenters	NA	11.20	7.27	9.23	11.20	12.80	15.27

Yavapai County (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
51-8031	Water and Liquid Waste Treatment Plant and System Operators	70	14.18	10.41	12.13	14.22	16.19	17.37
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	80	10.66	7.29	7.79	8.63	14.50	16.00
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	20	10.03	5.79	6.76	8.53	12.81	16.70
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	50	12.47	8.97	10.05	12.69	15.16	16.44
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	30	14.87	8.30	9.83	12.78	16.80	30.13
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	10	9.57	5.95	7.06	8.23	12.44	14.51
51-9198	Helpers – Production Workers	220	9.80	5.94	7.16	9.53	11.47	15.38
51-9199	Production Workers, All Other	30	12.49	7.26	7.87	11.31	15.07	22.95
53-0000	Transportation and Material Moving	2,320	10.58	5.86	6.73	9.17	12.88	16.37
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	20	17.69	13.77	15.42	17.86	19.86	21.06
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle	30	25.29	14.14	15.84	22.45	35.70	42.38
53-2021	Air Traffic Controllers	60						
53-3022	Bus Drivers, School	110	8.17	5.85	6.61	8.19	9.79	10.68
53-3031	Driver/Sales Workers	10	8.48	5.81	6.79	7.87	9.43	14.06
53-3032	Truck Drivers, Heavy and Tractor-Trailer	330	12.20	9.24	10.80	12.06	13.36	15.75
53-3033	Truck Drivers, Light or Delivery Services	290	9.76	5.98	6.94	8.12	11.76	16.43
53-3041	Taxi Drivers and Chauffeurs	NA	11.06	7.63	10.81	11.68	12.59	13.14
53-3099	Motor Vehicle Operators, All Other	40	11.98	7.77	10.84	12.17	13.47	16.05
53-6021	Parking Lot Attendants	NA	6.78	5.50	5.84	6.40	7.07	8.27
53-7051	Industrial Truck and Tractor Operators	90	11.60	7.44	10.60	12.06	13.33	15.46
53-7061	Cleaners of Vehicles and Equipment	20	8.01	5.78	6.73	8.01	9.54	10.51
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	320	7.76	5.73	6.49	7.58	8.62	10.32
53-7064	Packers and Packagers, Hand	NA	7.87	5.58	5.96	6.58	8.36	14.55

Yavapai County (Cont.)

Notes:

- 1 Annual wages were reported for certain full-time jobs (e.g., teachers) with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.
- NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Statewide

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
00-0000	Total	2,238,360	14.83	6.31	8.05	11.81	18.28	27.09
11-0000	Management	140,190	31.16	14.40	19.58	28.20	40.47	54.78
11-1011	Chief Executives	11,390	47.65	24.12	34.95	47.52	NA	NA
11-1021	General and Operations Mgrs.	37,480	33.20	15.03	20.83	30.23	43.17	60.91
11-1031	Legislators	690	16.74	5.61	6.12	7.27	25.32	42.55
11-2011	Advertising and Promotions Mgrs.	1,620	27.51	13.11	18.57	26.39	34.86	42.89
11-2021	Marketing Mgrs.	5,670	29.41	14.80	18.34	24.03	38.07	53.22
11-2022	Sales Mgrs.	7,160	31.84	15.27	20.24	29.29	42.13	53.91
11-2031	Public Relations Mgrs.	1,490	28.62	17.33	22.29	26.55	33.52	42.72
11-3011	Administrative Services Mgrs.	6,270	26.05	13.02	17.12	24.59	32.72	42.57
11-3021	Computer and Information Systems Mgrs.	4,740	35.41	20.17	27.89	36.07	42.85	51.64
11-3031	Financial Mgrs.	10,770	30.95	17.16	21.27	28.13	39.06	50.65
11-3040	Human Resources Mgrs.	4,200	25.78	15.02	18.03	23.12	31.98	41.55
11-3051	Industrial Production Mgrs.	2,800	31.37	17.26	22.57	30.15	39.16	49.36
11-3061	Purchasing Mgrs.	2,300	25.29	14.51	18.01	24.39	31.87	39.20
11-3071	Transportation, Storage, and Distribution Mgrs.	1,980	26.77	15.80	20.10	25.21	31.91	42.32
11-9011	Farm, Ranch, and Other Agricultural Mgrs.	140	16.55	8.91	9.52	10.54	23.76	26.98
11-9021	Construction Mgrs.	3,450	31.43	21.46	24.37	29.94	38.04	44.70
11-9031	Education Administrators, Preschool and Child Care Center/Program	1,220	17.49	7.69	9.79	15.88	23.64	30.44
11-9032	Education Administrators, Elementary and Secondary School	3,430	66,970	43,320	52,600	64,280	78,350	100,310
11-9033	Education Administrators, Postsecondary	1,740	32.85	19.87	24.56	31.45	40.40	49.98
11-9041	Engineering Mgrs.	5,300	39.95	25.33	31.53	39.21	48.91	58.88
11-9051	Food Service Mgrs.	7,260	16.31	10.84	13.07	16.02	19.29	21.58
11-9061	Funeral Directors	320	18.08	12.62	14.27	15.91	19.27	25.91
11-9071	Gaming Mgrs.	80	25.74	14.61	16.96	22.40	31.92	43.24
11-9081	Lodging Mgrs.	660	19.75	7.74	11.87	16.18	24.33	38.80
11-9111	Medical and Health Services Mgrs.	4,040	29.09	15.78	21.63	26.95	34.37	44.53
11-9121	Natural Sciences Mgrs.	660	27.25	14.83	19.32	26.80	33.56	41.98
11-9131	Postmasters and Mail Superintendents	190	23.63	17.85	19.69	23.03	26.75	32.07
11-9141	Property, Real Estate, and Community Association Mgrs.	3,380	18.68	7.86	11.21	15.93	23.54	31.14
11-9151	Social and Community Service Mgrs.	2,050	19.88	10.06	13.52	17.92	25.23	32.45
11-9199	Managers, All Other	7,730	28.76	14.34	19.45	27.30	36.37	46.73

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
13-0000	Business and Financial Operations	73,990	21.75	11.96	15.19	20.10	26.39	33.87
13-1011	Agents and Business Mgrs. of Artists, Performers, and Athletes	NA	22.33	17.85	19.13	21.25	25.48	29.73
13-1021	Purchasing Agents and Buyers, Farm Products	480	23.59	11.22	14.14	16.12	33.14	50.32
13-1022	Wholesale and Retail Buyers, Ex. Farm Products	2,180	19.32	10.69	12.74	17.51	23.50	30.64
13-1023	Purchasing Agents, Ex. Wholesale, Retail, and Farm Products	3,420	19.42	11.81	14.35	17.95	23.49	29.66
13-1031	Claims Adjusters, Examiners, and Investigators	3,010	20.80	13.43	15.85	19.81	25.42	31.04
13-1032	Insurance Appraisers, Auto Damage	120	20.65	15.56	17.49	19.69	22.70	27.90
13-1041	Compliance Officers, Ex. Agriculture, Const., Health and Safety, and Transportation	2,300	19.76	12.28	14.95	18.64	22.73	29.98
13-1051	Cost Estimators	3,350	23.11	12.62	16.32	21.22	27.31	36.82
13-1061	Emergency Management Specialists	110	20.52	13.40	15.36	18.96	24.95	29.66
13-1071	Employment, Recruitment, and Placement Spec.	3,050	16.90	10.11	11.91	14.80	19.52	26.92
13-1072	Compensation, Benefits, and Job Analysis Spec.	1,050	18.05	11.55	13.11	16.64	21.24	27.21
13-1073	Training and Development Specialists	4,730	19.50	11.48	13.90	18.15	24.45	29.98
13-1111	Management Analysts	7,800	24.21	14.06	17.03	21.64	28.88	40.01
13-1121	Meeting and Convention Planners	820	16.62	9.68	13.30	16.23	19.88	24.30
13-1199	Business Operations Specialists, All Other	8,230	22.55	11.65	14.99	21.51	28.29	36.38
13-2011	Accountants and Auditors	14,710	21.59	13.33	16.00	20.44	25.41	31.80
13-2021	Appraisers and Assessors of Real Estate	NA	17.13	8.28	12.16	17.93	20.36	24.69
13-2031	Budget Analysts	2,170	23.69	15.50	18.59	22.91	28.68	33.74
13-2041	Credit Analysts	1,130	21.68	10.22	12.65	18.48	28.52	39.57
13-2051	Financial Analysts	3,130	26.66	17.30	20.90	25.50	31.31	37.05
13-2052	Personal Financial Advisors	580	25.17	14.46	15.75	18.77	27.33	46.60
13-2053	Insurance Underwriters	1,660	23.41	12.72	15.70	20.59	28.72	40.37
13-2061	Financial Examiners	770	25.81	14.91	18.21	21.96	30.70	44.31
13-2071	Loan Counselors	NA	27.80	13.96	22.40	28.95	33.37	39.92
13-2072	Loan Officers	3,780	23.61	11.87	15.37	20.85	29.72	40.06
13-2081	Tax Examiners, Collectors, and Revenue Agents	540	23.60	15.23	18.60	23.68	28.56	32.90
13-2082	Tax Preparers	NA	11.75	6.73	8.57	11.51	13.06	17.76
13-2099	Financial Specialists, All Other	790	23.38	13.91	16.94	22.12	28.69	34.15

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
15-0000	Computer and Mathematical	51,830	27.40	13.79	18.18	26.00	34.93	42.76
15-1011	Computer and Information Scientists, Research	200	32.43	22.18	26.02	32.06	39.19	45.19
15-1021	Computer Programmers	9,440	25.49	14.64	18.93	25.42	31.73	36.97
15-1031	Computer Software Engineers, Applications	5,100	42.13	18.36	24.81	40.31	61.15	66.82
15-1032	Computer Software Engineers, Systems Software	6,400	33.07	21.78	27.74	33.48	39.91	44.28
15-1041	Computer Support Specialists	12,160	17.97	9.66	13.11	16.77	22.30	28.17
15-1051	Computer Systems Analysts	8,610	31.25	18.07	24.40	33.74	39.21	42.36
15-1061	Database Administrators	1,690	28.55	15.42	21.89	26.73	35.84	45.54
15-1071	Network and Computer Systems Administrators	3,350	25.01	16.46	19.25	24.12	30.53	34.49
15-1081	Network Systems and Data Communications Analysts	1,540	28.25	17.92	21.81	27.47	33.13	40.53
15-1099	Computer Specialists, All Other	2,050	25.80	12.41	17.14	23.51	33.32	43.33
15-2011	Actuaries	100	32.17	16.61	19.97	29.29	41.83	55.42
15-2021	Mathematicians	40	38.14	32.53	35.85	38.85	41.85	43.65
15-2031	Operations Research Analysts	850	22.47	12.06	14.28	20.31	28.59	37.58
15-2041	Statisticians	220	23.07	14.62	16.62	20.76	29.17	36.28
15-2099	Mathematical Scientists, All Other	20	19.64	10.36	17.16	20.49	24.24	26.78
17-0000	Architecture and Engineering	61,350	24.83	13.64	16.71	22.80	30.87	40.78
17-1011	Architects, Ex. Landscape and Naval	1,490	26.00	16.16	19.85	24.61	31.55	39.87
17-1012	Landscape Architects	380	20.74	11.99	17.26	20.31	25.26	31.18
17-1021	Cartographers and Photogrammetrists	140	19.80	12.40	15.65	19.89	24.13	27.20
17-1022	Surveyors	1,050	16.85	9.56	11.36	14.84	21.22	28.03
17-2011	Aerospace Engineers	2,330	31.21	21.66	25.39	30.24	34.90	44.96
17-2021	Agricultural Engineers	10	29.46	21.73	24.32	29.49	36.53	40.86
17-2031	Biomedical Engineers	NA	25.14	17.39	20.39	24.28	27.61	38.42
17-2041	Chemical Engineers	150	34.32	20.13	24.00	30.03	47.01	56.83
17-2051	Civil Engineers	3,340	26.78	17.68	20.27	25.19	31.80	40.15
17-2061	Computer Hardware Engineers	1,460	32.82	20.29	24.77	30.92	40.16	51.63
17-2071	Electrical Engineers	4,660	36.07	21.11	25.99	34.17	44.96	56.63
17-2072	Electronics Engineers, Ex. Computer	2,790	33.96	20.53	25.30	32.67	43.01	51.32

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
17-2081	Environmental Engineers	710	27.83	17.95	22.13	26.01	32.45	43.26
17-2111	Health and Safety Engineers, Ex. Mining Safety Engineers and Inspectors	670	24.40	11.64	19.29	24.88	30.68	34.99
17-2112	Industrial Engineers	5,390	27.32	16.09	20.53	27.37	33.37	40.48
17-2131	Materials Engineers	740	30.60	18.54	23.49	30.98	37.45	42.20
17-2141	Mechanical Engineers	3,260	28.97	18.24	22.05	26.94	33.74	45.98
17-2151	Mining and Geological Engineers, Inc. Mining Safety Engineers	NA	25.22	14.71	16.95	22.34	31.69	39.50
17-2199	Engineers, All Other	3,320	34.23	18.39	25.30	33.39	41.77	52.84
17-3011	Architectural and Civil Drafters	2,130	18.25	11.52	14.44	17.40	21.35	25.74
17-3012	Electrical and Electronics Drafters	NA	17.65	9.79	12.00	17.37	21.44	27.13
17-3013	Mechanical Drafters	1,700	21.03	11.88	14.24	20.72	25.74	33.14
17-3021	Aerospace Engineering and Operations Technicians	920	25.34	14.42	19.81	24.99	30.68	36.53
17-3022	Civil Engineering Technicians	1,830	18.67	11.52	13.95	17.85	22.27	28.18
17-3023	Electrical and Electronic Engineering Technicians	12,740	17.33	12.36	14.42	16.53	20.09	24.12
17-3024	Electro-Mechanical Technicians	NA	20.52	12.83	16.10	19.78	23.42	30.56
17-3025	Environmental Engineering Technicians	NA	16.25	11.69	12.92	15.39	18.73	22.02
17-3026	Industrial Engineering Technicians	2,430	22.77	12.75	15.37	21.88	29.78	35.27
17-3027	Mechanical Engineering Technicians	1,330	18.07	12.15	14.56	17.27	21.47	25.45
17-3031	Surveying and Mapping Technicians	930	17.81	10.85	13.38	17.04	21.80	26.21
17-3099	All Other Drafters, Engineering, and Mapping Technicians	2,740	22.51	13.94	18.46	23.19	26.39	29.50
19-0000	Life, Physical, and Social Science	13,900	21.02	9.35	14.04	20.02	26.66	33.87
19-1010	Agricultural and Food Scientists	240	23.60	14.62	18.78	23.59	28.43	32.80
19-1021	Biochemists and Biophysicists	50	32.87	17.12	20.02	28.48	44.42	61.17
19-1022	Microbiologists	90	20.74	12.25	14.68	19.48	24.78	30.06
19-1023	Zoologists and Wildlife Biologists	310	18.91	11.15	13.08	17.66	24.41	27.90
19-1031	Conservation Scientists	140	22.53	16.22	19.17	22.74	25.88	29.55
19-1032	Foresters	160	19.56	12.58	15.37	19.35	23.77	26.98

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
19-1041	Epidemiologists	60	23.41	13.57	15.04	18.23	25.44	40.39
19-1042	Medical Scientists, Ex. Epidemiologists	NA	25.30	14.73	20.57	24.77	27.61	37.43
19-1099	Life Scientists, All Other	NA	31.39	14.14	16.13	35.05	43.73	51.29
19-2011	Astronomers	110	29.28	15.06	19.09	29.02	38.12	46.04
19-2012	Physicists	60	30.02	16.29	19.96	27.14	39.73	48.08
19-2021	Atmospheric and Space Scientists	80	27.95	17.62	22.48	28.40	33.12	39.35
19-2031	Chemists	390	23.35	12.23	16.04	21.76	29.89	38.14
19-2032	Materials Scientists	140	32.30	19.02	23.33	31.46	41.75	49.78
19-2041	Environmental Scientists and Specialists, Inc. Health	950	23.81	14.65	17.73	22.29	30.24	34.41
19-2042	Geoscientists, Ex. Hydrologists and Geographers	320	23.39	13.76	17.12	20.26	27.11	37.59
19-2043	Hydrologists	390	25.34	16.85	18.94	22.56	29.01	38.12
19-2099	Physical Scientists, All Other	590	26.80	18.58	22.16	26.46	31.34	34.37
19-3011	Economists	110	27.14	14.97	19.66	27.46	33.34	40.18
19-3021	Market Research Analysts	1,630	22.76	9.47	14.90	21.19	28.56	39.49
19-3022	Survey Researchers	NA	11.01	6.39	7.82	9.70	12.08	19.75
19-3031	Clinical, Counseling, and School Psychologists	1,300	22.47	13.21	16.10	21.25	27.74	33.09
19-3051	Urban and Regional Planners	760	23.06	14.65	17.08	22.25	27.57	34.23
19-3091	Anthropologists and Archeologists	200	19.67	11.38	15.33	19.09	23.09	28.31
19-3093	Historians	10	20.80	14.42	15.64	18.55	26.34	31.77
19-3099	Social Scientists and Related Workers, All Other	460	24.27	15.03	18.83	24.15	29.63	33.82
19-4011	Agricultural and Food Science Technicians	NA	15.48	9.33	10.16	13.01	19.25	21.62
19-4021	Biological Technicians	320	13.57	9.06	10.56	12.83	16.15	20.08
19-4031	Chemical Technicians	550	19.98	9.63	13.53	17.84	25.46	34.04
19-4041	Geological and Petroleum Technicians	60	19.13	9.58	12.32	19.30	25.46	28.24
19-4091	Environmental Science and Protection Technicians, Inc. Health	100	21.82	14.78	17.05	21.64	26.46	29.99
19-4092	Forensic Science Technicians	230	21.66	12.56	17.17	20.59	26.13	33.03
19-4093	Forest and Conservation Technicians	570	12.96	8.88	10.28	12.43	15.36	18.55
19-4099	Life, Physical, and Social Science Technicians, All Other	2,330	15.11	5.83	7.16	13.47	21.58	26.42

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
21-0000	Community and Social Services	20,850	14.53	8.44	10.37	13.38	17.76	22.37
21-1011	Substance Abuse and Behavioral Disorder Counselors	950	12.94	8.36	9.60	11.07	16.32	20.16
21-1012	Educational, Vocational, and School Counselors	2,960	16.87	10.80	12.84	16.42	20.89	24.72
21-1013	Marriage and Family Therapists	500	15.04	11.73	13.50	15.11	16.61	18.43
21-1014	Mental Health Counselors	1,400	15.21	9.41	10.53	12.89	17.88	21.88
21-1015	Rehabilitation Counselors	880	13.11	8.42	9.73	11.88	15.63	20.67
21-1021	Child, Family, and School Social Workers	4,790	14.87	8.37	11.41	13.78	18.05	22.55
21-1022	Medical and Public Health Social Workers	1,200	17.11	11.22	12.53	15.76	20.95	26.46
21-1023	Mental Health and Substance Abuse Social Workers	2,220	12.02	7.69	9.03	10.79	13.49	19.26
21-1091	Health Educators	490	21.82	10.68	13.69	21.73	30.70	33.81
21-1092	Probation Officers and Correctional Treatment Spec.	1,230	15.66	9.75	13.67	15.76	17.97	20.98
21-1093	Social and Human Service Assistants	3,250	11.04	6.74	8.45	10.33	12.94	16.22
21-2011	Clergy	300	16.97	9.11	12.79	17.77	20.77	24.70
21-2021	Directors, Religious Activities and Education	100	17.40	11.64	13.22	15.78	20.86	27.55
21-9099	All Other Counselors, Social and Religious Workers	560	15.80	9.05	10.86	15.08	20.34	25.17
23-0000	Legal	12,410	29.23	9.81	14.93	24.01	43.01	56.42
23-1011	Lawyers	6,380	41.77	22.90	28.79	41.18	53.15	NA
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	170	27.67	17.03	19.04	22.79	32.58	52.62
23-1022	Arbitrators, Mediators, and Conciliators	80	21.98	9.99	14.05	18.76	31.59	34.82
23-1023	Judges, Magistrate Judges, and Magistrates	200	36.62	17.93	23.39	40.60	49.85	54.66
23-2011	Paralegals and Legal Assistants	3,660	14.69	7.57	9.73	14.41	19.04	22.30
23-2091	Court Reporters	60	17.80	6.82	14.46	18.84	21.59	26.13
23-2092	Law Clerks	210	15.60	9.62	10.85	15.45	19.00	21.40
23-2093	Title Examiners, Abstractors, and Searchers	700	13.75	9.06	9.97	12.65	16.91	20.65
23-9099	All Other Legal and Related Workers	950	15.64	9.74	11.61	14.65	18.10	22.63

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
25-0000	Education, Training, and Library	114,400	16.04	7.33	10.14	14.33	20.06	27.14
25-1011	Business Teachers, Postsecondary	950	52,740	27,570	39,690	49,390	60,950	78,650
25-1021	Computer Science Teachers, Postsecondary	1,200	47,680	25,280	31,920	47,180	62,860	72,310
25-1022	Mathematical Science Teachers, Postsecondary	860	36,970	21,170	25,670	35,660	43,970	56,520
25-1031	Architecture Teachers, Postsecondary	220	49,090	32,820	38,310	48,000	62,040	67,940
25-1032	Engineering Teachers, Postsecondary	360	52,260	27,850	35,360	51,270	65,690	74,640
25-1041	Agricultural Sciences Teachers, Postsecondary	430	54,470	29,380	35,760	54,490	70,740	84,630
25-1042	Biological Science Teachers, Postsecondary	480	47,200	24,280	31,380	44,650	61,580	75,220
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	NA	32,020	24,740	27,010	31,090	35,700	42,360
25-1052	Chemistry Teachers, Postsecondary	NA	39,660	21,430	25,670	34,250	47,120	74,610
25-1053	Environmental Science Teachers, Postsecondary	NA	46,450	25,310	28,420	41,700	64,320	73,300
25-1054	Physics Teachers, Postsecondary	520	63,360	27,160	44,070	54,420	90,010	108,540
25-1063	Economics Teachers, Postsecondary	560	69,900	38,300	43,980	56,030	98,470	126,490
25-1065	Political Science Teachers, Postsecondary	20	31,030	24,170	26,880	31,350	34,770	37,950
25-1066	Psychology Teachers, Postsecondary	200	52,200	26,090	34,520	45,580	73,700	86,970
25-1067	Sociology Teachers, Postsecondary	780	56,360	41,400	48,790	58,280	65,710	70,180
25-1071	Health Specialties Teachers, Postsecondary	960	55,380	24,930	30,730	45,220	71,690	110,550
25-1072	Nursing Instructors and Teachers, Postsecondary	840	52,460	24,580	35,560	52,050	65,650	80,150
25-1081	Education Teachers, Postsecondary	300	62,320	37,520	42,890	58,010	71,390	105,230
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	360	51,460	27,780	34,740	52,370	65,100	78,360
25-1121	Art, Drama, and Music Teachers, Postsecondary	750	49,640	18,360	27,950	41,010	75,140	93,300
25-1122	Communications Teachers, Postsecondary	370	62,330	37,550	46,110	61,480	77,290	88,360
25-1123	English Language and Literature Teachers, Postsecondary	1,060	46,740	18,970	25,340	38,020	65,000	94,110
25-1124	Foreign Language and Literature Teachers, Postsecondary	120	39,590	26,930	30,630	35,690	45,450	60,800
25-1125	History Teachers, Postsecondary	60	44,640	23,000	34,360	43,430	54,730	66,750
25-1126	Philosophy and Religion Teachers, Postsecondary	70	40,660	25,860	31,350	37,650	50,320	58,260
25-1192	Home Economics Teachers, Postsecondary	NA	35,380	23,440	25,070	27,770	42,680	59,910

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	NA	25,800	14,760	15,830	17,620	27,350	47,530
25-1194	Vocational Education Teachers, Postsecondary	1,640	16.24	8.34	12.24	16.15	20.19	23.94
25-1199	Postsecondary Teachers, All Other	NA	43,840	16,750	23,140	37,550	59,730	86,100
25-2011	Preschool Teachers, Ex. Special Education	6,460	9.34	5.60	6.20	7.93	11.85	15.89
25-2012	Kindergarten Teachers, Ex. Special Education	3,310	33,300	16,860	24,680	30,130	41,510	54,720
25-2021	Elementary School Teachers, Ex. Special Education	25,300	33,880	21,910	25,990	32,020	40,380	50,840
25-2022	Middle School Teachers, Ex. Special and Vocational Education	7,060	38,590	25,080	29,520	35,940	45,020	58,770
25-2023	Vocational Education Teachers, Middle School	120	32,100	19,170	21,940	31,450	38,910	45,920
25-2031	Secondary School Teachers, Ex. Special and Vocational Education	12,480	38,700	24,330	28,740	36,030	47,290	57,140
25-2032	Vocational Education Teachers, Secondary School	690	34,340	23,210	28,380	33,030	40,230	49,800
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School	3,420	30,450	19,340	22,810	28,580	35,460	45,380
25-2042	Special Education Teachers, Middle School	840	30,740	21,490	25,040	29,740	34,900	43,510
25-2043	Special Education Teachers, Secondary School	1,450	32,480	20,210	24,180	30,820	39,720	48,990
25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	NA	14.27	9.03	10.66	12.96	17.02	22.90
25-3021	Self-Enrichment Education Teachers	1,730	13.86	8.91	10.72	12.99	16.96	20.49
25-3999	All Other Teachers, Primary, Secondary, and Adult	4,690	30,600	17,930	21,100	26,500	37,930	50,440
25-4010	Archivists, Curators, and Museum Technicians	730	22.22	11.45	13.97	18.74	27.19	38.82
25-4021	Librarians	1,940	19.06	11.93	14.43	17.23	22.11	27.59
25-4031	Library Technicians	1,660	11.05	6.27	7.66	9.86	13.40	17.52
25-9011	Audio-Visual Collections Specialists	370	24.92	9.73	16.23	24.74	32.49	41.80
25-9021	Farm and Home Management Advisors	20	15.91	11.87	12.86	14.78	18.38	21.86
25-9031	Instructional Coordinators	2,590	19.21	10.92	13.62	17.52	23.66	29.79
25-9041	Teacher Assistants	18,180	17,140	12,230	14,150	16,470	19,630	23,580
25-9199	Education, Training, and Library Workers, All Other	NA	14.96	9.05	10.57	14.92	18.56	21.49

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
27-0000	Arts, Design, Entertainment, Sports, and Media	23,240	16.75	6.97	9.34	14.34	21.03	29.27
27-1011	Art Directors	200	25.38	13.72	15.93	21.23	30.07	47.02
27-1013	Fine Artists, Inc. Painters, Sculptors, and Illustrators	380	17.47	9.19	10.81	16.20	20.91	30.51
27-1014	Multi-Media Artists and Animators	250	18.38	9.46	11.90	16.81	23.76	27.91
27-1021	Commercial and Industrial Designers	670	21.70	14.37	18.04	20.94	24.83	27.75
27-1022	Fashion Designers	40	16.98	9.64	11.41	15.30	19.37	28.05
27-1023	Floral Designers	1,620	9.64	6.98	8.08	9.41	10.62	13.02
27-1024	Graphic Designers	2,680	16.62	9.66	12.81	15.69	19.77	25.20
27-1025	Interior Designers	450	20.34	10.30	12.76	18.66	28.47	34.72
27-1026	Merchandise Displayers and Window Trimmers	1,650	9.75	5.90	6.86	8.79	11.73	14.71
27-1027	Set and Exhibit Designers	180	12.43	7.52	8.87	11.79	14.08	18.97
27-1099	All Other Art and Design Workers	580	17.29	9.28	12.69	15.94	22.14	26.51
27-2011	Actors	NA	38,100	17,180	27,880	33,660	40,360	75,520
27-2012	Producers and Directors	460	41,950	22,960	26,430	36,890	52,350	66,230
27-2021	Athletes and Sports Competitors	300	102,960	28,300	48,570	NA	NA	NA
27-2022	Coaches and Scouts	1,040	32,500	15,330	18,320	26,010	40,740	54,990
27-2023	Umpires, Referees, and Other Sports Officials	60	16,170	11,680	12,440	13,720	19,640	22,230
27-2032	Choreographers	170	16.61	9.81	11.84	17.56	20.49	22.28
27-2041	Music Directors and Composers	NA	27,240	14,450	15,480	17,160	27,730	51,240
27-2042	Musicians and Singers	730	46,320	12,480	14,610	39,340	80,190	87,220
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	730	13,460	11,530	12,080	12,990	13,910	14,450
27-3010	Announcers	670	15.49	5.96	6.86	10.28	17.39	29.10
27-3020	News Analysts, Reporters and Correspondents	920	20.56	9.17	12.51	19.69	25.51	31.98
27-3031	Public Relations Specialists	1,290	20.43	12.02	14.72	18.80	25.17	32.32
27-3041	Editors	1,310	21.45	11.09	14.92	19.91	26.99	34.19
27-3042	Technical Writers	1,190	20.15	10.58	12.77	18.96	25.76	32.68
27-3043	Writers and Authors	450	23.50	9.80	12.31	17.71	25.84	NA
27-3091	Interpreters and Translators	130	16.23	9.12	12.27	16.53	20.29	23.29
27-3099	Media and Communication Workers, All Other	1,310	14.15	7.23	7.99	12.46	18.63	25.11
27-4011	Audio and Video Equipment Technicians	460	11.29	6.24	7.47	9.32	12.72	18.42
27-4012	Broadcast Technicians	640	13.87	5.99	7.01	9.82	19.02	30.12
27-4014	Sound Engineering Technicians	50	15.46	7.69	8.95	12.13	19.47	32.03

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
27-4021	Photographers	1,140	13.77	7.79	9.06	12.14	18.11	21.44
27-4031	Camera Operators, Television, Video, and Motion Picture	320	14.83	6.39	8.73	12.47	17.70	28.55
27-4032	Film and Video Editors	140	21.21	13.76	16.85	22.95	25.30	26.71
27-4099	Media and Communication Equipment Workers, All Other	280	20.44	7.28	10.51	20.15	28.45	35.93
29-0000	Healthcare Practitioners and Technical	86,080	21.86	10.07	13.98	19.04	25.67	34.49
29-1011	Chiropractors	130	46.82	29.20	36.02	45.04	61.36	67.69
29-1020	Dentists	1,200	54.46	37.52	43.54	56.00	69.79	NA
29-1031	Dietitians and Nutritionists	730	18.27	11.98	14.67	18.37	21.67	25.27
29-1041	Optometrists	360	44.81	12.70	32.40	49.16	55.40	NA
29-1051	Pharmacists	2,130	33.47	24.26	30.11	34.59	39.45	42.65
29-1062	Family and General Practitioners	1,930	55.48	30.34	48.01	63.31	NA	NA
29-1063	Internists, General	NA	55.52	47.14	49.78	54.19	NA	NA
29-1064	Obstetricians and Gynecologists	NA	69.85	NA	NA	NA	NA	NA
29-1065	Pediatricians, General	140	61.82	47.12	56.88	NA	NA	NA
29-1066	Psychiatrists	170	58.87	27.61	55.92	66.60	NA	NA
29-1067	Surgeons	NA	67.87	63.34	NA	NA	NA	NA
29-1069	Physicians and Surgeons, All Other	NA	63.36	26.67	NA	NA	NA	NA
29-1071	Physician Assistants	2,090	23.95	17.09	18.79	21.71	26.85	35.57
29-1081	Podiatrists	40	38.40	11.83	13.44	46.63	51.68	54.70
29-1111	Registered Nurses	28,680	22.63	16.67	18.92	21.97	26.25	30.90
29-1121	Audiologists	160	18.97	11.61	13.32	17.86	23.27	29.81
29-1122	Occupational Therapists	910	23.38	11.30	17.28	22.98	29.47	36.31
29-1123	Physical Therapists	2,070	27.24	17.27	22.11	27.24	32.39	37.45
29-1124	Radiation Therapists	190	20.74	13.56	18.04	21.02	24.39	26.97
29-1125	Recreational Therapists	420	13.74	8.19	10.84	14.39	16.35	17.62
29-1126	Respiratory Therapists	1,230	16.18	12.66	14.20	15.64	17.10	20.17
29-1127	Speech-Language Pathologists	1,350	19.78	11.83	14.52	17.56	24.12	31.37
29-1131	Veterinarians	770	30.56	19.81	23.44	27.48	33.73	49.26
29-1199	Health Diagnosing and Treating Practitioners, All Other	710	19.94	11.51	12.41	13.89	17.47	43.35
29-2011	Medical and Clinical Laboratory Technologists	2,020	19.72	14.59	16.57	19.30	22.21	26.38
29-2012	Medical and Clinical Laboratory Technicians	3,830	12.38	8.16	9.73	11.83	14.37	17.65

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
29-2021	Dental Hygienists	2,960	24.01	14.44	18.05	24.51	29.85	33.68
29-2031	Cardiovascular Technologists and Technicians	380	16.87	9.36	11.72	15.89	21.52	26.25
29-2032	Diagnostic Medical Sonographers	750	23.66	18.91	21.89	23.93	26.03	27.42
29-2033	Nuclear Medicine Technologists	170	21.25	16.30	19.00	21.92	24.45	26.18
29-2034	Radiologic Technologists and Technicians	4,280	16.92	11.70	13.51	16.59	19.78	23.13
29-2041	Emergency Medical Technicians and Paramedics	1,740	10.46	5.98	6.91	8.79	12.28	16.89
29-2051	Dietetic Technicians	730	10.42	6.99	7.94	9.62	12.19	15.86
29-2052	Pharmacy Technicians	2,300	10.11	7.37	8.52	9.89	11.55	13.29
29-2053	Psychiatric Technicians	390	9.93	7.41	8.63	9.81	11.16	12.92
29-2054	Respiratory Therapy Technicians	470	13.62	10.24	11.50	12.88	15.38	19.16
29-2055	Surgical Technologists	1,140	15.25	10.80	12.08	14.02	16.42	19.33
29-2056	Veterinary Technologists and Technicians	1,090	10.93	7.30	8.62	11.02	13.06	15.18
29-2061	Licensed Practical and Licensed Vocational Nurses	8,690	14.67	10.68	12.70	14.88	16.60	18.96
29-2071	Medical Records and Health Information Technicians	2,970	12.11	7.57	9.00	10.63	14.90	18.59
29-2081	Opticians, Dispensing	NA	11.02	7.68	9.00	10.59	12.83	15.34
29-2091	Orthotists and Prosthetists	20	14.19	9.53	11.06	13.43	15.79	17.45
29-9010	Occupational Health and Safety Specialists and Technicians	380	19.12	11.41	14.20	18.25	23.26	28.87
29-9091	Athletic Trainers	NA	38,260	25,190	30,640	35,050	47,760	55,430
29-9199	All Other Health Professionals and Technicians	1,890	14.01	7.61	8.84	12.50	17.45	22.93
31-0000	Healthcare Support	48,590	9.75	6.77	7.74	9.26	10.95	13.45
31-1011	Home Health Aides	9,820	8.04	6.04	7.06	7.90	8.82	10.30
31-1012	Nursing Aides, Orderlies, and Attendants	15,030	9.07	6.77	7.71	9.07	10.37	11.76
31-1013	Psychiatric Aides	1,270	9.25	7.22	7.91	9.03	10.08	10.71
31-2011	Occupational Therapist Assistants	NA	16.52	13.12	14.60	16.25	18.62	20.86
31-2012	Occupational Therapist Aides	140	12.80	8.82	9.46	10.53	16.72	20.06
31-2021	Physical Therapist Assistants	780	13.65	8.49	10.26	12.82	16.36	20.29
31-2022	Physical Therapist Aides	1,070	9.29	7.16	7.86	9.10	10.54	12.23
31-9011	Massage Therapists	750	15.80	7.19	8.40	11.20	24.54	30.01
31-9091	Dental Assistants	4,470	10.94	6.00	7.68	11.07	14.10	16.05
31-9092	Medical Assistants	9,000	10.43	7.55	8.71	10.06	11.73	13.54
31-9093	Medical Equipment Preparers	550	11.71	7.87	9.22	11.33	12.88	15.59
31-9094	Medical Transcriptionists	1,320	13.35	9.31	10.69	13.14	15.70	17.86

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
31-9095	Pharmacy Aides	1,150	9.27	6.41	7.53	9.10	10.50	12.85
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	870	8.31	5.86	6.77	7.96	9.70	11.53
31-9099	Healthcare Support Workers, All Other	2,230	11.45	8.56	9.42	10.79	12.85	15.69
33-0000	Protective Service	64,150	14.61	6.96	8.48	13.10	19.25	25.75
33-1011	First-Line Supervisors/Mgrs. of Correctional Officers	1,110	18.15	13.85	14.88	16.59	20.28	25.63
33-1012	First-Line Supervisors/Mgrs. of Police and Detectives	2,520	29.18	19.94	24.37	29.78	33.86	38.93
33-1021	First-Line Supervisors/Mgrs. of Fire Fighting and Prevention Workers	1,670	27.07	16.87	22.85	28.53	32.47	34.85
33-1099	First-Line Supervisors/Mgrs., Protective Service Workers, All Other	2,040	13.97	7.97	9.28	11.11	16.32	24.86
33-2011	Fire Fighters	4,970	17.32	6.58	12.15	17.64	23.70	26.47
33-2021	Fire Inspectors and Investigators	520	21.58	14.78	17.07	20.04	25.79	31.99
33-2022	Forest Fire Inspectors and Prevention Specialists	50	13.05	6.11	13.55	14.70	15.85	16.54
33-3011	Bailiffs	NA	15.30	9.20	12.86	15.56	17.50	20.90
33-3012	Correctional Officers and Jailers	8,730	13.73	10.86	11.86	13.57	15.61	16.85
33-3021	Detectives and Criminal Investigators	1,590	21.93	14.97	17.36	20.42	26.82	32.07
33-3031	Fish and Game Wardens	340	17.99	12.70	15.10	18.26	20.70	23.37
33-3041	Parking Enforcement Workers	360	16.22	10.34	12.63	16.78	19.77	21.34
33-3051	Police and Sheriff's Patrol Officers	12,030	20.00	14.29	16.40	20.08	24.09	26.52
33-9011	Animal Control Workers	280	9.91	5.83	6.74	9.97	12.10	13.43
33-9021	Private Detectives and Investigators	480	15.36	7.54	8.81	10.80	18.81	34.70
33-9031	Gaming Surveillance Officers and Gaming Investigators	200	10.41	8.85	9.26	9.95	10.64	13.05
33-9032	Security Guards	23,870	8.89	6.18	7.17	8.23	10.10	12.66
33-9091	Crossing Guards	1,120	7.18	5.57	5.99	6.68	7.79	8.81
33-9099	Protective Service Workers, All Other	1,910	13.85	7.38	8.67	12.27	18.41	23.95
35-0000	Food Preparation and Serving-Related	193,350	7.33	5.46	5.85	6.50	8.03	10.75
35-1011	Chefs and Head Cooks	2,150	15.92	8.84	11.25	17.05	19.84	22.12
35-1012	First-Line Supervisors/Mgrs. of Food Preparation and Serving Workers	10,080	11.40	7.69	9.31	11.25	13.02	15.61

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
35-2011	Cooks, Fast Food	7,400	6.89	5.52	5.98	6.77	7.76	8.38
35-2012	Cooks, Institution and Cafeteria	4,180	9.02	6.40	7.50	8.90	10.27	11.76
35-2014	Cooks, Restaurant	13,290	9.01	6.87	7.55	8.70	10.29	12.09
35-2015	Cooks, Short Order	2,160	7.46	5.67	6.28	7.31	8.29	9.81
35-2021	Food Preparation Workers	16,810	6.86	5.49	5.90	6.58	7.72	8.66
35-3011	Bartenders	7,470	7.52	5.50	5.88	6.51	8.81	12.09
35-3021	Combined Food Preparation and Serving Workers, Inc. Fast Food	50,650	6.46	5.40	5.71	6.23	6.76	8.34
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	4,340	6.74	5.53	5.91	6.55	7.56	8.50
35-3031	Waiters and Waitresses	38,210	7.19	5.40	5.71	6.23	6.74	12.01
35-3041	Food Servers, Non-restaurant	2,190	6.84	5.49	5.88	6.54	7.70	8.88
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	14,090	6.60	5.39	5.70	6.21	6.73	9.08
35-9021	Dishwashers	12,730	6.14	5.39	5.67	6.14	6.61	7.37
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	7,290	7.16	5.57	6.08	6.92	8.10	9.43
35-9099	Food Preparation and Serving Related Workers, All Other	330	8.21	5.80	6.59	7.98	9.61	10.72
37-0000	Building and Grounds Cleaning and Maintenance	85,560	8.39	5.74	6.46	7.64	9.40	12.45
37-1011	First-Line Supervisors/Mgrs. of Housekeeping and Janitorial Workers	3,380	12.22	7.90	9.27	11.29	13.72	17.98
37-1012	First-Line Supervisors/Mgrs. of Landscaping, Lawn Service, and Groundskeeping Workers	3,150	13.34	8.48	9.74	12.58	15.96	19.82
37-2011	Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners	29,850	7.94	5.65	6.24	7.30	8.77	11.55
37-2012	Maids and Housekeeping Cleaners	18,070	7.07	5.60	6.09	6.92	7.98	8.78
37-2021	Pest Control Workers	2,830	10.37	7.05	8.51	10.08	12.05	14.52
37-3011	Landscaping and Groundskeeping Workers	26,060	8.33	5.85	6.74	7.74	9.16	11.97
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	NA	8.05	6.98	7.30	7.83	8.35	9.72
37-3013	Tree Trimmers and Pruners	150	10.01	6.61	7.64	9.29	12.29	14.05
37-9099	All Other Building and Grounds Cleaning and Maintenance Workers	1,720	11.45	6.43	7.83	9.70	12.50	16.98

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
39-0000	Personal Care and Service	44,160	9.04	5.68	6.35	7.78	10.16	13.99
39-1011	Gaming Supervisors	520	18.70	12.52	14.71	17.80	21.34	27.87
39-1012	Slot Key Persons	530	10.90	7.30	8.19	9.93	12.57	16.46
39-1021	First-Line Supervisors/Mgrs. of Personal Service Workers	1,410	14.34	8.92	10.42	12.71	16.27	22.92
39-2011	Animal Trainers	NA	15.65	6.54	8.43	11.84	19.19	38.75
39-2021	Non-farm Animal Caretakers	2,290	7.50	5.65	6.26	7.24	8.23	9.79
39-3011	Gaming Dealers	1,180	9.65	5.73	6.36	9.27	12.00	13.43
39-3012	Gaming and Sports Book Writers and Runners	320	9.14	7.14	7.85	9.02	10.22	11.29
39-3021	Motion Picture Projectionists	180	7.07	5.45	5.91	6.67	8.22	9.71
39-3031	Ushers, Lobby Attendants, and Ticket Takers	1,640	6.58	5.43	5.76	6.33	7.07	8.28
39-3091	Amusement and Recreation Attendants	4,230	7.16	5.56	5.98	6.69	8.03	9.61
39-3092	Costume Attendants	NA	9.93	6.36	7.54	9.35	12.11	13.45
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	320	8.23	5.75	6.40	8.01	9.86	11.83
39-3199	Gaming Workers, All Other	NA	9.94	7.10	7.94	9.39	10.76	13.75
39-4011	Embalmers	100	12.92	9.62	10.94	12.34	14.03	16.56
39-4021	Funeral Attendants	210	8.44	5.75	6.66	7.63	8.61	13.03
39-5011	Barbers	220	10.71	6.98	8.02	10.00	13.07	16.32
39-5012	Hairdressers, Hairstylists, and Cosmetologists	6,490	7.81	5.52	6.00	6.83	8.43	10.72
39-5092	Manicurists and Pedicurists	700	6.89	5.37	5.69	6.21	6.73	10.03
39-5093	Shampooers	150	7.07	5.53	6.04	6.89	8.00	9.35
39-5094	Skin Care Specialists	280	11.53	6.66	7.28	8.21	13.69	22.58
39-6011	Baggage Porters and Bellhops	1,190	7.21	5.48	5.88	6.56	7.95	10.75
39-6012	Concierges	580	8.44	6.03	7.14	8.28	9.72	10.70
39-6021	Tour Guides and Escorts	1,250	9.88	5.65	6.35	9.69	12.43	13.95
39-6022	Travel Guides	40	10.36	7.25	7.63	8.24	11.42	19.84
39-6032	Transportation Attendants, Ex. Flight Attendants and Baggage Porters	230	8.42	6.76	7.38	8.06	8.74	11.39
39-9011	Child Care Workers	5,830	7.12	5.55	6.02	6.81	8.11	9.50
39-9021	Personal and Home Care Aides	2,510	8.46	7.10	7.58	8.39	9.49	10.44
39-9031	Fitness Trainers and Aerobics Instructors	2,180	13.31	6.82	7.89	11.31	18.89	24.16
39-9032	Recreation Workers	5,500	10.06	5.78	6.59	8.38	11.64	16.69
39-9041	Residential Advisors	410	11.31	6.69	8.10	10.98	13.71	16.59
39-9099	Personal Care and Service Workers, All Other	1,090	10.47	6.09	7.35	9.22	10.84	17.87

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
41-0000	Sales and Related	227,560	13.28	6.09	7.33	9.96	15.65	24.96
41-1011	First-Line Supervisors/Mgrs. of Retail Sales Workers	20,560	15.30	8.00	10.09	13.25	18.16	24.82
41-1012	First-Line Supervisors/Mgrs. of Non-Retail Sales Workers	NA	20.24	9.80	12.34	18.07	25.19	34.88
41-2011	Cashiers	53,010	8.00	5.66	6.28	7.40	9.02	11.90
41-2012	Gaming Change Persons and Booth Cashiers	850	10.20	8.01	9.11	10.12	11.28	12.97
41-2021	Counter and Rental Clerks	9,330	10.68	6.54	7.69	9.89	12.66	14.70
41-2022	Parts Salespersons	4,860	12.94	7.32	8.75	11.57	15.95	20.38
41-2031	Retail Salespersons	60,580	10.26	5.80	6.64	8.26	11.51	17.08
41-3011	Advertising Sales Agents	2,660	19.16	8.61	10.01	13.73	19.58	46.77
41-3021	Insurance Sales Agents	3,480	19.87	10.28	14.43	17.78	22.27	30.12
41-3031	Securities, Commodities, and Financial Services Sales Agents	5,910	24.82	10.83	13.67	19.56	29.36	56.43
41-3041	Travel Agents	1,880	11.95	8.29	9.53	11.44	13.39	17.45
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	11,950	24.61	10.08	14.87	21.49	35.16	42.22
41-4012	Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products	20,550	19.77	9.28	12.29	16.73	24.10	35.42
41-9011	Demonstrators and Product Promoters	NA	13.51	7.90	9.38	11.62	15.03	19.06
41-9012	Models	160	11.27	6.07	7.55	9.72	11.90	17.24
41-9021	Real Estate Brokers	680	34.17	8.62	13.39	20.43		
41-9022	Real Estate Sales Agents	2,700	18.81	7.83	9.56	12.21	20.80	46.29
41-9031	Sales Engineers	2,240	31.69	16.22	22.92	31.51	39.67	48.40
41-9041	Telemarketers	12,870	9.50	6.55	7.26	8.18	10.10	14.01
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	130	10.12	5.82	6.58	9.13	12.50	15.34
41-9099	Sales and Related Workers, All Other	5,840	15.61	7.04	9.26	13.39	19.72	27.58
43-0000	Office and Administrative Support	407,790	11.94	7.17	8.67	10.87	14.21	18.57
43-1011	First-Line Supervisors/Mgrs. of Office and Administrative Support Workers	23,380	18.14	10.83	13.24	16.90	21.66	27.03
43-2011	Switchboard Operators, Inc. Answering Service	4,210	9.67	6.90	8.27	9.54	10.66	12.85
43-2021	Telephone Operators	520	14.17	8.48	12.54	15.27	16.61	17.41

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-2099	Communications Equipment Operators, All Other	NA	15.57	14.18	14.79	15.81	16.82	17.43
43-3011	Bill and Account Collectors	11,350	12.10	7.91	9.59	11.68	13.78	16.80
43-3021	Billing and Posting Clerks and Machine Operators	7,380	11.37	7.78	9.32	10.98	13.05	15.57
43-3031	Bookkeeping, Accounting, and Auditing Clerks	29,990	13.42	8.65	10.11	12.30	15.53	22.43
43-3041	Gaming Cage Workers	210	9.34	7.25	7.94	9.10	10.27	12.02
43-3051	Payroll and Timekeeping Clerks	3,980	11.77	8.26	9.55	11.41	13.51	16.23
43-3061	Procurement Clerks	1,160	12.99	8.83	11.04	12.94	15.20	17.03
43-3071	Tellers	5,220	9.51	7.52	8.60	9.54	10.45	11.62
43-4011	Brokerage Clerks	580	13.59	8.98	10.40	13.01	16.20	19.72
43-4021	Correspondence Clerks	460	11.23	8.80	9.61	10.97	12.53	13.48
43-4031	Court, Municipal, and License Clerks	2,640	11.73	9.01	9.78	11.25	13.28	15.73
43-4041	Credit Authorizers, Checkers, and Clerks	3,990	11.31	7.57	8.88	10.64	13.08	16.45
43-4051	Customer Service Representatives	40,220	11.01	7.37	8.70	10.20	12.71	16.03
43-4061	Eligibility Interviewers, Government Programs	3,160	12.10	9.09	10.12	11.81	13.44	16.05
43-4071	File Clerks	5,120	8.53	5.84	6.70	8.18	10.06	12.09
43-4081	Hotel, Motel, and Resort Desk Clerks	2,670	7.46	5.71	6.37	7.39	8.36	9.77
43-4111	Interviewers, Ex. Eligibility and Loan	3,010	10.63	7.36	8.14	9.99	12.33	13.90
43-4121	Library Assistants, Clerical	1,130	9.64	6.82	7.77	9.32	11.42	13.42
43-4131	Loan Interviewers and Clerks	2,930	13.51	8.62	10.50	12.66	15.79	20.02
43-4141	New Accounts Clerks	850	10.21	7.56	8.71	9.84	11.07	13.23
43-4151	Order Clerks	6,090	10.46	7.13	8.23	9.93	12.19	15.18
43-4161	Human Resources Assistants, Ex. Payroll and Timekeeping	4,030	12.39	7.95	9.38	11.59	14.66	17.01
43-4171	Receptionists and Information Clerks	20,710	9.27	6.69	7.63	8.99	10.58	12.65
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	NA	10.96	7.59	8.76	10.47	12.84	15.51
43-4999	All Other Financial, Information, and Record Clerks	NA	12.49	7.61	8.85	11.31	14.75	18.25
43-5011	Cargo and Freight Agents	NA	16.58	9.59	14.53	16.93	19.88	21.84
43-5021	Couriers and Messengers	2,430	9.04	6.81	7.51	8.69	10.03	11.03
43-5031	Police, Fire, and Ambulance Dispatchers	1,790	14.33	8.92	11.01	14.80	17.15	20.09
43-5032	Dispatchers, Ex. Police, Fire, and Ambulance	3,260	13.66	8.30	9.91	12.62	17.54	20.61
43-5041	Meter Readers, Utilities	1,790	15.18	10.60	12.28	14.81	18.41	20.96

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
43-5051	Postal Service Clerks	900	18.60	16.67	17.71	18.97	20.24	21.00
43-5052	Postal Service Mail Carriers	5,280	17.59	13.21	16.08	18.33	19.99	20.98
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	3,330	14.56	9.50	11.18	14.34	18.35	20.25
43-5061	Production, Planning, and Expediting Clerks	6,710	13.04	6.84	8.45	12.01	16.06	21.19
43-5071	Shipping, Receiving, and Traffic Clerks	13,680	9.81	6.58	7.59	8.97	11.32	14.34
43-5081	Stock Clerks and Order Fillers	29,250	9.45	5.98	6.92	8.31	10.82	15.43
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	1,220	10.66	7.34	8.29	9.96	12.39	15.47
43-5199	All Other Material Recording, Scheduling, Dispatching, and Distributing Workers	190	12.54	8.47	9.44	10.88	13.89	19.51
43-6011	Executive Secretaries and Administrative Assistants	31,180	14.74	9.94	11.81	14.28	17.10	20.43
43-6012	Legal Secretaries	4,150	15.51	10.67	12.64	15.67	18.73	20.79
43-6013	Medical Secretaries	3,910	11.28	8.54	9.65	11.18	12.78	14.07
43-6014	Secretaries, Ex. Legal, Medical, and Executive	27,140	11.45	7.50	9.01	11.04	13.35	16.27
43-9011	Computer Operators	3,500	12.23	7.89	9.26	11.31	14.60	17.64
43-9021	Data Entry Keyers	8,440	10.30	7.39	8.41	9.76	11.51	13.90
43-9022	Word Processors and Typists	4,470	10.71	7.33	8.49	10.29	12.51	14.56
43-9031	Desktop Publishers	430	17.13	8.46	11.95	16.45	21.75	26.48
43-9041	Insurance Claims and Policy Processing Clerks	4,690	14.52	9.46	11.30	13.49	16.80	20.72
43-9051	Mail Clerks and Mail Machine Operators, Ex. Postal Service	3,190	8.59	5.78	6.59	8.28	10.25	12.22
43-9061	Office Clerks, General	40,190	9.99	6.43	7.59	9.23	11.46	15.09
43-9071	Office Machine Operators, Ex. Computer	1,740	8.94	5.86	6.75	8.05	10.32	14.61
43-9081	Proofreaders and Copy Markers	730	9.36	5.79	6.63	7.98	11.47	13.64
43-9111	Statistical Assistants	140	13.05	8.94	9.86	11.70	14.41	18.75
43-9999	All Other Secretaries, Administrative Assistants, and Other Office Support	7,430	13.70	7.78	9.74	12.55	16.36	20.79

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
45-0000	Farming, Fishing, and Forestry	12,590	7.68	5.56	5.93	6.56	8.26	11.51
45-1011	First-Line Supervisors/Mgrs. of Farming, Fishing, and Forestry Workers	770	14.91	9.75	11.21	13.10	18.05	23.97
45-2011	Agricultural Inspectors	200	13.09	8.90	10.35	12.49	15.47	18.88
45-2041	Graders and Sorters, Agricultural Products	500	10.54	6.04	8.41	9.38	10.30	18.65
45-2091	Agricultural Equipment Operators	600	8.21	5.77	6.42	7.43	8.64	12.11
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	8,350	6.68	5.51	5.83	6.34	6.89	8.76
45-2093	Farmworkers, Farm and Ranch Animals	1,050	7.28	5.61	6.03	6.73	8.25	10.35
45-4021	Fallers	80	7.33	5.70	6.21	6.96	8.12	10.21
45-4022	Logging Equipment Operators	120	11.39	8.32	9.51	11.08	12.59	13.94
45-9099	Farming, Fishing, and Forestry Workers, All Other	780	6.58	5.35	5.65	6.15	6.65	8.69
47-0000	Construction and Extraction	162,330	14.02	7.46	9.76	13.29	17.42	21.33
47-1011	First-Line Supervisors/Mgrs. of Construction Trades and Extraction Workers	13,960	21.57	14.20	17.19	20.65	25.67	31.17
47-2011	Boilermakers	NA	19.67	17.30	18.11	19.49	20.87	23.97
47-2021	Brickmasons and Blockmasons	2,720	14.98	9.16	11.15	15.41	18.56	20.66
47-2022	Stonemasons	260	12.13	7.96	11.02	12.10	13.19	16.74
47-2031	Carpenters	22,640	15.34	9.20	11.56	14.84	18.71	21.94
47-2041	Carpet Installers	650	13.26	8.25	10.68	12.84	16.30	19.34
47-2042	Floor Layers, Ex. Carpet, Wood, and Hard Tiles	310	11.60	6.23	7.60	9.94	14.54	19.41
47-2044	Tile and Marble Setters	NA	12.67	8.99	10.06	12.43	15.12	16.84
47-2051	Cement Masons and Concrete Finishers	6,980	14.79	10.68	12.31	14.62	17.17	19.98
47-2053	Terrazzo Workers and Finishers	NA	12.15	7.50	8.68	11.08	14.06	17.46
47-2061	Construction Laborers	20,470	10.27	6.23	7.54	9.64	12.53	15.71
47-2071	Paving, Surfacing, and Tamping Equipment Operators	1,120	13.02	7.25	8.43	12.56	16.54	20.23
47-2073	Operating Engineers and Other Construction Equipment Operators	6,310	16.30	11.27	13.33	16.08	19.23	21.40
47-2081	Drywall and Ceiling Tile Installers	5,630	13.16	8.15	10.63	13.08	15.70	18.06
47-2082	Tapers	4,010	13.68	8.56	11.57	14.07	15.92	17.14
47-2111	Electricians	10,170	16.42	10.79	12.89	16.04	19.45	22.34

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
47-2121	Glaziers	850	12.60	7.68	9.54	12.19	15.56	19.10
47-2130	Insulation Workers	660	13.42	7.98	9.28	10.82	17.99	21.77
47-2141	Painters, Construction and Maintenance	5,230	12.22	8.43	9.69	11.69	13.99	17.00
47-2142	Paperhangers	NA	18.44	16.21	17.68	18.95	20.23	20.99
47-2151	Pipelayers	1,070	13.79	9.77	11.60	13.74	16.06	18.25
47-2152	Plumbers, Pipefitters, and Steamfitters	6,950	17.00	11.14	13.38	16.57	20.47	24.48
47-2161	Plasterers and Stucco Masons	3,430	13.79	8.52	10.55	13.44	16.44	20.00
47-2171	Reinforcing Iron and Rebar Workers	750	13.96	8.16	10.48	13.25	18.10	20.31
47-2181	Roofers	3,160	13.19	8.48	10.05	12.98	15.84	19.09
47-2211	Sheet Metal Workers	4,980	12.49	7.57	8.87	11.33	15.29	19.92
47-2221	Structural Iron and Steel Workers	1,440	15.57	11.28	13.22	15.43	17.91	20.72
47-3011	Helpers – Brickmasons, Blockmasons, Stone-masons, and Tile and Marble Setters	3,220	8.08	5.57	6.01	6.74	9.20	12.53
47-3012	Helpers – Carpenters	5,450	9.26	6.13	7.25	8.73	10.35	13.26
47-3013	Helpers – Electricians	4,560	9.14	6.09	7.23	9.18	10.57	12.70
47-3014	Helpers – Painters, Paperhangers, Plasterers, and Stucco Masons	2,050	8.23	5.72	6.48	7.80	9.57	11.94
47-3015	Helpers – Pipelayers, Plumbers, Pipefitters, and Steamfitters	3,680	10.31	6.44	7.82	9.53	11.95	16.36
47-3016	Helpers – Roofers	1,480	6.90	5.58	6.02	6.77	7.82	8.57
47-3019	Helpers, Construction Trades, All Other	1,710	10.36	5.86	7.07	9.60	12.60	17.30
47-4011	Construction and Building Inspectors	1,890	19.49	12.24	14.87	19.03	23.93	27.55
47-4021	Elevator Installers and Repairers	NA	17.24	10.15	11.92	15.13	23.70	26.52
47-4031	Fence Erectors	NA	11.10	7.11	7.94	9.79	13.62	18.50
47-4041	Hazardous Materials Removal Workers	890	12.76	9.23	10.44	12.00	13.47	18.63
47-4051	Highway Maintenance Workers	1,560	12.62	9.21	10.48	12.29	14.71	16.78
47-4061	Rail-Track Laying and Maintenance Equipment Operators	180	14.52	8.84	10.30	13.23	17.06	24.29
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	230	11.74	6.93	7.72	9.59	15.66	20.28
47-4999	All Other Construction Trades and Related Workers	1,670	13.48	9.24	11.13	13.16	15.65	17.92
47-5012	Rotary Drill Operators, Oil and Gas	20	19.57	11.66	12.39	13.62	29.08	33.13
47-5021	Earth Drillers, Ex. Oil and Gas	320	13.44	9.31	10.62	13.04	15.86	17.54
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	50	17.78	14.58	15.85	17.59	19.83	21.21

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
47-5041	Continuous Mining Machine Operators	860	17.61	14.56	16.16	18.00	19.75	20.80
47-5042	Mine Cutting and Channeling Machine Operators	NA	19.89	15.76	18.17	19.93	21.69	24.64
47-5051	Rock Splitters, Quarry	260	12.17	10.95	11.55	12.33	13.11	13.62
47-5081	Helpers – Extraction Workers	2,510	11.91	8.79	9.95	11.79	13.75	15.87
49-0000	Installation, Maintenance, and Repair	95,320	15.55	7.97	10.36	14.53	19.66	25.27
49-1011	First-Line Supervisors/Mgrs. of Mechanics, Installers, and Repairers	7,080	22.18	12.54	16.15	21.21	26.49	33.48
49-2011	Computer, Automated Teller, and Office Machine Repairers	2,550	14.37	10.28	11.74	13.32	16.24	20.62
49-2021	Radio Mechanics	60	19.46	8.59	16.08	20.94	24.38	26.36
49-2022	Telecommunications Equipment Installers and Repairers, Ex. Line Installers	4,460	21.02	13.04	17.79	22.74	25.36	26.94
49-2091	Avionics Technicians	420	21.25	14.67	17.43	22.38	25.08	26.70
49-2092	Electric Motor, Power Tool, and Related Repairers	270	17.34	8.81	11.63	17.89	20.95	26.35
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	340	20.95	12.48	15.86	21.14	25.32	28.29
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	140	25.30	19.62	22.82	25.40	28.09	32.40
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	30	16.34	13.59	14.34	15.58	16.83	22.15
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	490	15.49	9.06	12.87	15.26	17.70	21.71
49-2098	Security and Fire Alarm Systems Installers	940	13.89	7.87	10.94	13.22	16.84	20.44
49-2099	All Other Electrical and Electronic Equipment Mechanics, Installers, and Repairers	610	20.64	11.48	14.84	20.26	26.28	31.55
49-3011	Aircraft Mechanics and Service Technicians	2,720	18.37	12.09	15.27	18.37	21.00	25.45
49-3021	Automotive Body and Related Repairers	3,180	16.47	7.56	9.84	14.03	20.92	29.79
49-3022	Automotive Glass Installers and Repairers	430	12.30	6.05	9.40	12.65	15.58	17.70
49-3023	Automotive Service Technicians and Mechanics	16,230	14.85	7.20	9.00	13.83	19.15	25.59

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	4,450	16.25	9.98	13.41	16.11	19.56	22.26
49-3041	Farm Equipment Mechanics	210	13.51	8.26	10.85	13.17	16.35	19.35
49-3042	Mobile Heavy Equipment Mechanics, Ex. Engines	2,930	16.74	12.12	14.25	17.02	19.50	21.11
49-3043	Rail Car Repairers	70	15.30	9.27	11.64	15.51	19.41	21.00
49-3051	Motorboat Mechanics	90	12.37	8.25	11.20	12.45	13.97	16.22
49-3052	Motorcycle Mechanics	260	13.96	7.64	9.87	13.82	17.66	20.84
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	320	11.96	7.95	10.09	11.91	13.33	16.49
49-3091	Bicycle Repairers		8.37	5.67	6.43	9.03	9.96	10.51
49-3092	Recreational Vehicle Service Technicians	740	13.66	8.07	9.76	12.05	15.23	20.69
49-3093	Tire Repairers and Changers	2,490	8.81	6.51	7.48	8.55	9.97	11.07
49-3099	All Other Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	490	16.38	6.90	10.79	15.59	22.74	26.68
49-9012	Control and Valve Installers and Repairers, Ex. Mechanical Door	630	19.72	12.45	14.98	18.13	24.73	29.85
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	4,220	15.15	9.38	11.78	15.04	18.29	21.09
49-9031	Home Appliance Repairers	570	13.78	9.11	11.23	13.29	16.26	19.54
49-9041	Industrial Machinery Mechanics	1,330	18.42	12.56	14.81	17.50	21.01	25.61
49-9042	Maintenance and Repair Workers, General	19,760	12.25	7.45	9.14	11.45	14.99	18.55
49-9043	Maintenance Workers, Machinery	2,560	16.40	9.64	12.26	16.63	19.68	21.47
49-9044	Millwrights	720	19.64	14.36	16.15	19.15	23.45	26.54
49-9051	Electrical Power-Line Installers and Repairers	830	21.91	16.11	18.88	21.67	25.42	27.92
49-9052	Telecommunications Line Installers and Repairers	3,990	14.03	8.85	10.36	12.93	17.59	20.83
49-9061	Camera and Photographic Equipment Repairers	30	14.91	8.22	11.84	13.53	17.43	24.01
49-9062	Medical Equipment Repairers	100	17.28	12.36	14.64	17.34	19.89	21.58
49-9063	Musical Instrument Repairers and Tuners	NA	29.79	27.70	28.83	30.72	32.61	33.74
49-9064	Watch Repairers	150	11.35	6.67	8.94	10.21	14.43	16.92
49-9069	Precision Instrument and Equipment Repairers, All Other	40	18.01	11.31	13.82	18.15	21.37	25.66
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	460	13.51	9.01	11.76	14.30	15.90	16.86
49-9093	Fabric Menders, Ex. Garment	20	17.56	14.43	15.83	17.90	19.70	20.78

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
49-9094	Locksmiths and Safe Repairers	NA	14.76	7.89	11.41	14.37	18.49	21.55
49-9095	Manufactured Building and Mobile Home Installers	280	13.22	7.72	10.47	12.42	15.74	19.74
49-9096	Riggers	NA	16.28	9.47	11.09	15.62	19.71	26.01
49-9098	Helpers – Installation, Maintenance, and Repair Workers	2,900	9.84	6.29	7.52	9.04	11.33	14.97
49-9099	Installation, Maintenance, and Repair Workers, All Other	1,990	14.70	7.00	9.22	13.89	19.04	22.21
51-0000	Production	146,640	11.84	6.42	7.90	10.30	14.58	19.79
51-1011	First-Line Supervisors/Mgrs. of Production and Operating Workers	9,520	19.40	11.38	14.06	17.69	22.92	29.98
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	960	19.08	14.58	17.08	19.07	21.05	24.34
51-2021	Coil Winders, Tapers, and Finishers	NA	9.60	7.31	7.91	9.07	10.93	12.87
51-2022	Electrical and Electronic Equipment Assemblers	5,350	11.08	6.48	8.02	10.12	13.67	16.80
51-2023	Electromechanical Equipment Assemblers	NA	18.20	11.69	15.15	18.38	22.34	25.28
51-2031	Engine and Other Machine Assemblers	400	10.07	7.33	8.19	9.55	11.48	13.37
51-2041	Structural Metal Fabricators and Fitters	1,380	13.67	9.32	10.99	13.34	16.14	18.81
51-2091	Fiberglass Laminators and Fabricators	160	12.29	7.39	8.51	10.85	15.58	19.56
51-2092	Team Assemblers	24,130	9.57	6.25	7.47	9.11	10.91	13.49
51-2093	Timing Device Assemblers, Adjusters, and Calibrators	20	13.25	9.72	10.91	11.98	13.13	15.99
51-2099	Assemblers and Fabricators, All Other	2,330	11.39	6.02	7.12	8.49	12.53	24.13
51-3011	Bakers	2,610	9.87	6.02	7.40	10.13	12.17	13.29
51-3021	Butchers and Meat Cutters	1,630	13.90	8.55	11.03	13.75	17.32	19.80
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	330	11.13	6.99	8.04	10.20	13.64	16.46
51-3023	Slaughterers and Meat Packers	NA	8.79	7.09	7.83	9.02	10.09	10.73
51-3092	Food Batchmakers	590	8.35	6.05	6.98	7.94	9.37	11.07
51-3093	Food Cooking Machine Operators and Tenders	110	6.60	5.51	5.82	6.35	6.88	8.37
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	2,140	13.92	8.75	10.48	13.76	16.91	20.09

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
51-4012	Numerical Tool and Process Control Programmers	NA	14.29	8.55	9.41	11.95	19.30	21.18
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	1,030	10.84	7.08	8.29	9.96	12.25	14.84
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	270	11.51	6.40	8.50	10.08	13.91	19.24
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	410	9.62	5.78	6.73	9.29	11.81	14.88
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	2,950	9.60	6.24	7.52	9.27	11.07	13.56
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	NA	10.90	7.14	7.85	10.07	13.24	16.14
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal/Plastic	1,240	11.33	6.65	8.82	10.98	13.15	16.44
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	970	14.62	9.57	11.35	13.76	17.30	20.87
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	640	13.43	9.43	10.84	12.92	15.77	18.76
51-4041	Machinists	4,930	15.01	8.18	11.67	15.25	18.52	21.14
51-4051	Metal-Refining Furnace Operators and Tenders	90	14.54	9.41	10.97	14.87	17.32	20.14
51-4052	Pourers and Casters, Metal	210	12.49	9.26	10.31	12.34	15.00	16.51
51-4061	Model Makers, Metal and Plastic	NA	9.35	6.07	7.12	8.44	10.62	13.55
51-4062	Patternmakers, Metal and Plastic	100	14.75	11.84	13.17	14.92	16.36	17.23
51-4071	Foundry Mold and Coremakers	250	11.28	7.49	8.72	10.13	11.93	13.64
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal/Plastic	800	12.40	6.88	8.65	10.27	15.21	22.99
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	460	12.13	7.65	9.12	11.44	14.58	18.11
51-4111	Tool and Die Makers	740	18.93	12.87	16.48	19.37	21.74	25.21
51-4121	Welders, Cutters, Solderers, and Brazers	5,480	12.78	8.44	9.82	12.05	14.99	18.62
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	NA	12.95	8.81	10.04	11.88	13.67	19.33
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	NA	11.30	7.52	8.63	10.12	12.79	18.07
51-4192	Lay-Out Workers, Metal and Plastic	290	11.28	6.10	8.80	10.23	13.57	18.02

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	NA	10.48	7.05	8.00	9.63	11.88	17.09
51-4194	Tool Grinders, Filers, and Sharpeners	NA	13.77	9.05	9.92	12.63	16.75	21.36
51-4199	Metal Workers and Plastic Workers, All Other	NA	16.12	7.90	10.44	17.54	20.63	23.27
51-5011	Bindery Workers	1,000	10.14	6.96	7.73	9.34	11.98	15.19
51-5012	Bookbinders	50	11.98	8.66	9.81	11.95	14.43	16.06
51-5021	Job Printers	940	11.71	7.75	9.05	10.99	14.05	16.92
51-5022	Prepress Technicians and Workers	1,290	13.70	9.03	10.63	13.00	16.46	19.96
51-5023	Printing Machine Operators	2,130	14.65	8.85	11.10	14.76	18.22	20.64
51-6011	Laundry and Dry-Cleaning Workers	3,090	6.99	5.58	6.04	6.81	7.93	8.72
51-6021	Pressers, Textile, Garment, and Related Materials	1,010	7.39	5.57	6.06	6.90	8.74	10.23
51-6031	Sewing Machine Operators	1,670	8.73	5.88	6.82	8.06	10.03	12.63
51-6041	Shoe and Leather Workers and Repairers	110	7.50	5.59	6.06	6.85	8.46	10.09
51-6042	Shoe Machine Operators and Tenders	20	9.13	7.39	8.34	9.38	10.17	10.65
51-6051	Sewers, Hand	240	9.27	5.78	6.44	7.36	8.44	19.18
51-6052	Tailors, Dressmakers, and Custom Sewers	390	11.74	8.98	9.81	11.31	13.50	15.89
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	130	8.11	6.43	7.15	7.91	8.91	10.45
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	40	11.26	9.06	9.92	11.37	12.76	13.59
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	70	9.00	6.38	7.22	8.32	10.20	12.61
51-6093	Upholsterers	340	10.36	6.52	8.35	10.20	12.45	13.96
51-6099	Textile, Apparel, and Furnishings Workers, All Other	NA	7.58	5.87	6.66	7.57	8.49	9.94
51-7011	Cabinetmakers and Bench Carpenters	1,680	11.42	7.06	8.45	10.55	13.40	17.47
51-7021	Furniture Finishers	700	10.98	6.92	8.09	10.28	13.71	16.19
51-7031	Model Makers, Wood	NA	9.99	7.17	7.79	8.92	10.05	10.73
51-7032	Patternmakers, Wood	50	14.83	9.19	10.47	12.30	18.34	25.86
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	680	9.47	5.95	7.22	8.72	10.56	14.81
51-7042	Woodworking Machine Setters, Operators, and Tenders, Ex. Sawing	950	8.67	5.98	7.02	8.10	9.79	12.36

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
51-7099	Woodworkers, All Other	460	9.54	5.67	6.44	8.46	11.90	14.89
51-8013	Power Plant Operators	990	22.47	10.38	17.39	23.52	28.94	33.03
51-8021	Stationary Engineers and Boiler Operators	830	20.09	12.07	15.57	20.36	24.88	27.64
51-8031	Water and Liquid Waste Treatment Plant and System Operators	1,690	17.25	10.41	13.21	16.81	20.83	25.27
51-8091	Chemical Plant and System Operators	30	16.22	9.25	10.38	14.85	23.13	26.37
51-8092	Gas Plant Operators	NA	22.62	17.04	21.36	23.53	25.61	26.85
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	80	15.01	8.65	10.29	15.39	18.45	20.71
51-8099	Plant and System Operators, All Other	420	17.64	8.02	10.83	17.56	23.13	26.73
51-9011	Chemical Equipment Operators and Tenders	270	13.59	7.71	9.41	13.13	17.75	20.82
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators/Tenders	1,050	15.92	8.46	14.05	17.17	19.34	20.65
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	1,030	13.46	7.41	8.65	14.10	17.92	20.20
51-9022	Grinding and Polishing Workers, Hand	1,260	8.82	6.50	7.58	8.89	9.99	10.65
51-9023	Mixing and Blending Machine Setters, Operators and Tenders	670	10.46	6.29	7.83	9.79	12.72	15.95
51-9031	Cutters and Trimmers, Hand	290	8.52	5.74	6.55	7.76	9.39	10.72
51-9032	Cutting and Slicing Machine Setters, Operators and Tenders	520	11.09	6.36	8.14	10.56	14.37	16.23
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	620	11.80	6.07	7.49	9.65	15.17	21.88
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	180	9.74	7.22	8.01	9.22	10.46	12.84
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	8,000	13.17	7.68	9.28	12.08	16.42	20.45
51-9071	Jewelers and Precious Stone and Metal Workers	260	14.92	7.52	8.45	14.00	19.16	24.63
51-9081	Dental Laboratory Technicians	750	12.57	8.39	9.66	11.76	15.29	17.53
51-9082	Medical Appliance Technicians	NA	16.17	9.57	12.25	16.34	19.67	21.71
51-9083	Ophthalmic Laboratory Technicians	370	10.84	7.61	8.92	10.35	12.55	14.77
51-9111	Packaging and Filling Machine Operators and Tenders	2,130	9.22	6.03	7.02	8.40	11.52	13.26
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	1,090	10.16	6.18	7.85	10.03	12.19	13.74
51-9122	Painters, Transportation Equipment	550	16.74	8.33	11.45	15.50	19.82	28.05

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
51-9123	Painting, Coating, and Decorating Workers	750	10.15	6.22	7.57	9.60	12.19	15.24
51-9131	Photographic Process Workers	110	10.21	6.60	8.80	10.23	11.99	13.44
51-9132	Photographic Processing Machine Operators	NA	8.75	6.96	7.43	8.21	9.75	11.32
51-9191	Cementing and Gluing Machine Operators and Tenders	90	10.75	8.99	9.61	10.64	12.15	13.15
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	NA	7.45	5.55	5.95	6.62	8.77	10.95
51-9193	Cooling and Freezing Equipment Operators/Tenders	NA	8.51	7.08	7.58	8.41	9.56	10.28
51-9194	Etchers and Engravers	210	9.03	5.81	6.76	9.03	10.39	12.95
51-9195	Molders, Shapers, and Casters, Ex. Metal and Plastic	1,130	10.32	6.14	7.60	9.83	12.61	15.33
51-9196	Paper Goods Machine Setters, Operators, and Tenders	460	11.06	7.44	8.58	10.53	13.02	16.11
51-9197	Tire Builders	190	8.67	7.11	7.63	8.50	9.85	10.72
51-9198	Helpers - Production Workers	10,140	7.68	5.55	6.11	7.23	8.77	10.46
51-9199	Production Workers, All Other	7,880	9.40	5.73	6.55	8.27	10.83	15.69
53-0000	Transportation and Material-Moving	152,120	11.99	6.10	7.47	10.22	14.49	21.03
53-1011	Aircraft Cargo Handling Supervisors	130	14.48	9.21	10.28	12.44	16.19	25.38
53-1021	First-Line Supervisors/Mgrs. of Helpers, Laborers, and Material Movers, Hand	3,470	17.42	9.42	12.28	15.76	20.73	29.34
53-1031	First-Line Supervisors/Mgrs. of Transportation and Material-Moving Machine and Vehicle	3,860	19.43	9.67	12.17	17.29	24.56	33.48
53-2012	Commercial Pilots	430	44,090	13,870	36,070	45,160	55,660	67,870
53-2021	Air Traffic Controllers	330	35.87	20.77	29.42	35.27	45.91	51.67
53-2099	All Other Air Transportation Workers	960	10.57	7.19	7.86	9.61	12.25	15.85
53-3011	Ambulance Drivers and Attendants, Ex. Emergency Medical Technicians	130	7.16	5.60	6.03	6.75	8.36	9.97
53-3021	Bus Drivers, Transit and Intercity	2,860	16.51	9.04	10.52	16.33	22.03	25.40
53-3022	Bus Drivers, School	5,480	9.39	6.05	7.71	9.57	10.84	12.78
53-3031	Driver/Sales Workers	8,440	8.82	5.66	6.28	7.45	10.15	13.70
53-3032	Truck Drivers, Heavy and Tractor-Trailer	22,720	16.45	11.04	12.78	15.46	19.52	24.25
53-3033	Truck Drivers, Light or Delivery Services	18,350	13.48	7.10	8.56	11.13	17.65	24.47

Statewide (Cont.)

Occupation			Hourly Wage ⁽¹⁾					
Code	Title	Employment	Average	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
53-3041	Taxi Drivers and Chauffeurs	3,320	9.03	6.55	7.63	8.99	10.33	12.00
53-3099	Motor Vehicle Operators, All Other	1,780	10.31	6.33	7.51	9.29	12.34	15.93
53-4011	Locomotive Engineers	560	21.03	14.70	18.09	20.73	24.37	27.37
53-4012	Locomotive Firers	30	21.78	14.81	17.53	23.59	25.76	27.07
53-4021	Railroad Brake, Signal, and Switch Operators	NA	19.36	12.22	15.47	19.40	22.16	26.75
53-4031	Railroad Conductors and Yardmasters	NA	21.13	15.21	18.02	20.42	23.84	27.83
53-5021	Captains, Mates, and Pilots of Water Vessels	NA	15.80	5.82	6.85	13.31	23.32	30.95
53-6021	Parking Lot Attendants	2,850	9.34	5.80	6.57	9.02	12.10	13.51
53-6031	Service Station Attendants	1,880	7.43	5.58	6.02	6.74	8.09	10.64
53-6041	Traffic Technicians	270	21.28	14.60	16.10	20.22	25.76	29.70
53-6051	Transportation Inspectors	350	21.63	13.58	15.89	19.56	26.28	36.18
53-6099	Transportation Workers, All Other	730	13.07	6.74	8.06	10.48	16.30	25.11
53-7011	Conveyor Operators and Tenders	950	15.55	9.48	12.62	16.68	19.06	20.56
53-7021	Crane and Tower Operators	510	16.62	10.80	12.84	16.30	19.55	23.28
53-7032	Excavating and Loading Machine and Dragline Operators	710	19.19	11.74	14.47	18.85	24.21	27.22
53-7033	Loading Machine Operators, Underground Mining	20	11.84	7.31	8.14	12.39	14.76	16.48
53-7041	Hoist and Winch Operators	30	13.65	9.08	10.18	12.92	17.24	20.08
53-7051	Industrial Truck and Tractor Operators	6,340	11.19	7.38	8.48	10.49	13.21	16.44
53-7061	Cleaners of Vehicles and Equipment	6,260	7.12	5.57	6.04	6.85	8.13	9.41
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	37,690	9.53	6.16	7.38	9.19	11.31	13.49
53-7063	Machine Feeders and Offbearers	840	8.47	5.74	6.35	7.62	10.10	12.48
53-7064	Packers and Packagers, Hand	14,930	7.38	5.51	5.89	6.53	8.15	11.07
53-7072	Pump Operators, Ex. Wellhead Pumpers	20	13.02	7.86	11.36	12.71	14.54	19.45
53-7081	Refuse and Recyclable Material Collectors	1,830	14.57	9.10	11.54	14.50	17.15	20.98
53-7199	Material Moving Workers, All Other	660	10.28	6.07	7.36	9.46	13.30	15.93

Notes:

- 1 Annual wages were reported for certain full-time jobs (e.g., teachers) with non-standard schedules (not 2080 hours per year). See "Survey Overview," page 1, for additional information.
- NA Data not available or releasable. See "Survey Overview," page 1, for additional information.

Source: Prepared by the Arizona Department of Economic Security, Research Administration in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, November 20, 2001

Statewide (Cont.)

Overview

- The OES survey classification covers all employed persons and owners of incorporated firms. It excludes unpaid family workers, owners of unincorporated firms and occupations unique to volunteers. Each occupation is assigned to only one occupation at the lowest level of the classification.
- Occupations are classified based upon work performed, and skills, education, training, and credentials required for the job.
- Supervisors of professional and technical workers usually have a background similar to the workers they supervise, and are therefore classified with the workers they supervise. Likewise, team leaders, lead workers and supervisors of production, sales, and service workers who spend at least 20 percent of their time performing work similar to the workers they supervise are classified with the workers they supervise.
- First-line managers and supervisors of production, service, and sales workers who spend more than 80 percent of their time performing supervisory activities are classified separately in the appropriate supervisor category, since their work activities are distinct from those of the workers they supervise. First-line managers are generally found in smaller establishments where they perform both supervisory and management functions, such as accounting, marketing, and personnel work.
- Apprentices and trainees should be classified with the occupations for which they are being trained, while helpers and aides should be classified separately.
- If an occupation is not included as a distinct detailed occupation in the structure, it is classified in the appropriate residual occupation. Residual occupations contain all occupations within a major, minor or broad group that are not classified separately.
- When workers may be classified in more than one occupation, they should be classified in the occupation that requires the highest level of skill. If there is no measurable difference in skill requirements, workers are included in the occupation they spend the most time.
- OES collects data at the detailed occupational level in almost all cases. A few occupations are surveyed

at the broad level to ensure enough response in that occupation to support an estimate, and avoid potential problems with secondary disclosure.

Management

11-1011 Chief Executives

Determine and formulate policies and provide the overall direction of companies or private and public sector organizations within the guidelines set up by a board of directors or similar governing body. Plan, direct, or coordinate operational activities at the highest level of management with the help of subordinate executives and staff managers.

Illustrative Examples: School Superintendent; Chief Operating Officer

11-1021 General and Operations Managers

Plan, direct, or coordinate the operations of companies or public and private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Include owners and managers who head small business establishments whose duties are primarily managerial. Exclude "First-Line Supervisors/Managers of Retail Sales Workers" (41-1011) and workers in other small establishments.

Illustrative Examples: Industrial Organization Manager; District Manager; Department Store General Manager

11-1031 Legislators

Develop laws and statutes at the Federal, State, or local level. Include only elected officials.

Illustrative Examples: Representative; Council Member; Senator

11-2011 Advertising and Promotions Managers

Plan and direct advertising policies and programs or produce collateral materials, such as posters, contests, coupons, or give-aways, to create extra interest in the purchase of a product or service for a department, an entire organization, or on an account basis.

Illustrative Examples: Campaign Director; Circulation Director; Media Director

11-2021 Marketing Managers

Determine the demand for products and services offered by a firm and its competitors and identify potential customers. Develop pricing strategies with the goal of maximizing the firm's profits or share of the market while ensuring the firm's customers are satisfied. Oversee product development or monitor trends that indicate the need for new products and services.

Illustrative Examples: Fashion Coordinator; Marketing Director

11-2022 Sales Managers

Direct the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.

Illustrative Examples: Director of Sales; Export Manager; Regional Sales Manager

11-2031 Public Relations Managers

Plan and direct public relations programs designed to create and maintain a favorable public image for employer or client; or if engaged in fundraising, plan and direct activities to solicit and maintain funds for special projects and nonprofit organizations.

Illustrative Examples: Fundraising Director; Public Information Director; Publicity Director

11-3011 Administrative Services Managers

Plan, direct, or coordinate supportive services of an organization, such as recordkeeping, mail distribution, telephone operator/receptionist, and other office support services. May oversee facilities planning and maintenance and custodial operations. Exclude "Purchasing Managers" (11-3061).

Illustrative Examples: Facilities Manager; Space Officer

11-3021 Computer and Information Systems Managers

Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming. Exclude "Computer Specialists" (15-1011 through 15-1099).

Illustrative Examples: Data Processing Manager; Computer Programming Manager; Data Systems Manager

11-3022 Computer and Information System Managers, Non R&D (SIC 822 only)

11-3023 Computer and Information System Managers, R&D (SIC 822 only)

11-3031 Financial Managers

Plan, direct, and coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment.

Illustrative Examples: Bank Director; Comptroller; Budget Director

11-3040 Human Resources Managers

This broad occupation includes three detailed occupations (see below).

Illustrative Example: Personnel Director

11-3041 Compensation and Benefits Managers (SOC code only)

Plan, direct, or coordinate compensation and benefits activities and staff of an organization. Include job analysis and position description managers.

11-3042 Training and Development Managers (SOC code only)

Plan, direct, or coordinate the training and development activities and staff of an organization.

11-3049 Human Resources Managers, All Other (SOC code only)

11-3051 Industrial Production Managers

Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.

Illustrative Examples: Factory Superintendent; Plant Manager; Quality Control Manager

11-3061 Purchasing Managers

Plan, direct, or coordinate the activities of buyers, purchasing officers, and related workers involved in purchasing materials, products, and services. Include wholesale or retail trade merchandising managers and procurement managers.

Illustrative Examples: Director of Purchasing; Merchandise Manager; Procurement Manager

11-3071 Transportation, Storage, and Distribution Managers

Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with governmental policies and regulations. Include logistics managers.

Illustrative Examples: Airport Manager; Schedule Planning Manager; Warehouse Manager

11-9011 Farm, Ranch, and Other Agricultural Managers

On a paid basis, manage farms, ranches, aquacultural operations, greenhouses, nurseries, timber tracts, cotton gins, packing houses, or other agricultural establishments for employers. Carry out production, financial, and marketing decisions relating to the managed operations following guidelines from the owner. May contract tenant farmers or producers to carry out the day-to-day activities of the managed operation. May supervise planting, cultivating, harvesting, and marketing activities. May prepare cost, production, and other records. May perform physical work and operate machinery.

Illustrative Examples: Fruit Grower; Farm Livestock Manager; Nursery and Greenhouse Manager

11-9012 Farmers and Ranchers

On an ownership or rental basis, operate farms, ranches, greenhouses, nurseries, timber tracts, or other agricultural production establishments which produce crops, horticultural specialties, livestock, poultry, finfish, shellfish, or animal specialties. Include operators of cotton gins, packing houses, and other post-harvest operations. May plant, cultivate, harvest, perform post-harvest activities, and market crops and livestock; may hire, train, and supervise farm workers or supervise a farm labor contractor; may prepare cost, production, and other records. May maintain and operate machinery and perform physical work.

Illustrative Examples: Beekeeper; Dairy Farmer; Tobacco Grower

11-9021 Construction Managers

Plan, direct, coordinate, or budget, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, and implementation. Include specialized construction fields, such as carpentry or plumbing. Include general superintendents, project managers, and constructors who manage, coordinate, and supervise the construction process.

Illustrative Examples: Masonry Contractor Administrator; Developer; General Contractor

11-9031 Education Administrators, Preschool and Child Care Center/Program

Plan, direct, or coordinate the academic and non-academic activities of preschool and child care centers or programs. Exclude "Preschool Teachers" (25-2011).

Illustrative Examples: Director of Child Care Center; Head Start Director

11-9032 Education Administrators, Elementary and Secondary School

Plan, direct, or coordinate the academic, clerical, or auxiliary activities of public or private elementary or secondary level schools.

Illustrative Examples: Director of Physical Education; Curriculum Director; School Principal

11-9033 Education Administrators, Postsecondary

Plan, direct, or coordinate research, instructional, student administration and services, and other educational activities at postsecondary institutions, Inc. universities, colleges, and junior and community colleges.

Illustrative Examples: Director of Student Affairs; Dean; Registrar

11-9039 Education Administrators, All Other

All education administrators not listed separately.

Illustrative Examples: Director of Extension Work; Director of Vocational Training; Health Education Director

11-9041 Engineering Managers

Plan, direct, or coordinate activities in such fields as architecture and engineering or research and development in these fields. Exclude "Natural Sciences Managers" (11-9121).

Illustrative Examples: Engineering Research Manager; Safety Director; Technical Director

11-9042 Engineering Managers, Non R&D (SIC 822 only)

11-9043 Engineering Managers, R&D (SIC 822 only)

11-9051 Food Service Managers

Plan, direct, or coordinate activities of an organization or department that serves food and beverages.

Illustrative Examples: Banquet Director; Restaurant Manager; Catering Manager

11-9061 Funeral Directors

Perform various tasks to arrange and direct funeral services, such as coordinating transportation of body to mortuary for embalming, interviewing family or other authorized person to arrange details, selecting pallbearers, procuring official for religious rites, and providing transportation for mourners.

Illustrative Examples: Mortician; Funeral Home Manager; Undertaker

11-9071 Gaming Managers

Plan, organize, direct, control, or coordinate gaming operations in a casino. Formulate gaming policies for their area of responsibility.

Illustrative Examples: Casino Manager; Blackjack Manager; Dice Manager

11-9081 Lodging Managers

Plan, direct, or coordinate activities of an organization or department that provides lodging and other accommodations. Exclude "Food Service Managers" (11-9051) in lodging establishments.

Illustrative Examples: Director of Housing; Innkeeper; Hotel Manager

11-9111 Medical and Health Services Managers

Plan, direct, or coordinate medicine and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.

Illustrative Examples: Director of Occupational Therapy; Medical Records Administrator; Public Health Administrator

11-9121 Natural Sciences Managers

Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields. Exclude "Engineering Managers" (11-9041) and "Computer and Information Systems Managers" (11-3021).

Illustrative Examples: Geophysical Manager; Research and Development Director; Wildlife Manager

11-9122 Natural Sciences Managers, Non R&D (SIC 822 only)

11-9123 Natural Sciences Managers, R&D (SIC 822 only)

11-9131 Postmasters and Mail Superintendents

Direct and coordinate operational, administrative, management, and supportive services of a U.S. post office; or coordinate activities of workers engaged in postal and related work in assigned post office.

11-9141 Property, Real Estate, and Community Association Managers

Plan, direct, or coordinate selling, buying, leasing, or governance activities of commercial, industrial, or residential real estate properties. Include managers of homeowner and condominium associations, rented or leased housing units, buildings, or land (Inc. rights-of-way).

Illustrative Examples: Condominium Association Manager; Trailer Park Manager

11-9151 Social and Community Service Managers

Plan, organize, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.

Illustrative Examples: Child Welfare Director; Youth Program Director; Director of Casework Services

11-9199 Managers, All Other

All managers not listed separately.

Illustrative Examples: City Clerk; Publisher; Vocational Education Director; Communications Manager

Business and Financial Operations

13-1011 Agents and Business Managers of Artists, Performers, and Athletes

Represent and promote artists, performers, and athletes to prospective employers. May handle contract negotiation and other business matters for clients.

Illustrative Examples: Booking Agent; Boxing Promoter; Theatrical Agent

13-1021 Purchasing Agents and Buyers, Farm Products

Purchase farm products either for further processing or resale. Include Christmas tree contractors, grain brokers and market operators, grain buyers, and tobacco buyers.

Illustrative Examples: Cotton Broker; Livestock Buyer; Tobacco Buyer

13-1022 Wholesale and Retail Buyers, Ex. Farm Products

Buy merchandise or commodities, other than farm products, for resale to consumers at the wholesale or retail level, Inc. both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. Include assistant buyers.

Illustrative Examples: Importer; Merchandiser; Wholesale Jobber

13-1023 Purchasing Agents, Ex. Wholesale, Retail, and Farm Products

Purchase machinery, equipment, tools, parts, supplies, or services necessary for the operation of an establishment. Purchase raw or semi-finished materials for manufacturing. Include contract specialists, field contractors, purchasers, price analysts, tooling coordinators, and media buyers. Exclude "Purchasing Agents and Buyers, Farm Products" (13-1021) and "Wholesale and Retail Buyers, Ex. Farm Products" (13-1022).

Illustrative Examples: Fuel Buyer; Lumber Buyer; Radio Time Buyer

13-1031 Claims Adjusters, Examiners, and Investigators

Review settled claims to determine that payments and settlements have been made in accordance with company practices and procedures, ensuring that proper methods have been followed. Report overpayments, underpayments, and other irregularities. Confer with legal counsel on claims requiring litigation.

Illustrative Examples: Health Insurance Adjuster; Arson Investigator; Claims Agent

13-1032 Insurance Appraisers, Auto Damage

Appraise automobile or other vehicle damage to determine cost of repair for insurance claim settlement and seek agreement with automotive repair shop on cost of repair. Prepare insurance forms to indicate repair cost or cost estimates and recommendations.

Illustrative Example: Auto Damage Estimator

13-1041 Compliance Officers, Ex. Agriculture, Construction, Health and Safety, and Transportation

Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and other compliance and enforcement inspection activities not classified elsewhere. Exclude "Tax Examiners, Collectors, and Revenue Agents" (13-2081) and "Financial Examiners" (13-2061).

Illustrative Examples: Truant Officer; Coroner; Inspector of Weights and Measures

13-1051 Cost Estimators

Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service. May specialize according to particular service performed or type of product manufactured.

Illustrative Examples: Construction Estimator; Crating and Moving Estimator; Job Estimator

13-1061 Emergency Management Specialists

Coordinate disaster response or crisis management activities, provide disaster preparedness training, and prepare emergency plans and procedures for natural (e.g., hurricanes, floods, earthquakes), wartime, or technological (e.g., nuclear power plant emergencies, hazardous materials spills) disasters or hostage situations.

Illustrative Examples: Director of Civil Defense; Public Safety Director

13-1071 Employment, Recruitment, and Placement Specialists

Recruit and place workers.

Illustrative Examples: Employment Interviewer; Personnel Recruiter; Placement Assistant

13-1072 Compensation, Benefits, and Job Analysis Specialists

Conduct programs of compensation and benefits and job analysis for employer. May specialize in specific areas, such as position classification and pension programs.

Illustrative Examples: Occupational Analyst; Relocation Director; Wage Conciliator

13-1073 Training and Development Specialists

Conduct training and development programs for employees.

Illustrative Examples: Training Coordinator; Workforce Development Specialist; Supervisor, Training Personnel

13-1079 Human Resources, Training, and Labor Relations Specialists, All Other

All human resources, training, and labor relations specialists not listed separately.

Illustrative Examples: Personnel Arbitrator; Employee Relations Specialist

13-1081 Logisticians

Analyze and coordinate the logistical functions of a firm or organization. Responsible for the entire life cycle of a product, Inc. acquisition, distribution, internal allocation, delivery, and final disposal of resources.

Illustrative Examples: Logistics Engineer; Logistics Analyst; Logistics Planner

13-1111 Management Analysts

Conduct organizational studies and evaluations, design systems and procedures, conduct work simplifications and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Include program analysts and management consultants. Exclude "Computer Systems Analysts" (15-1051) and "Operations Research Analysts" (15-2031).

Illustrative Examples: Business Consultant; Industrial Analyst

13-1121 Meeting and Convention Planners

Coordinate activities of staff and convention personnel to make arrangements for group meetings and conventions.

Illustrative Examples: Conference Planner; Conference Service Coordinator; Convention Manager

13-1199 Business Operations Specialists, All Other

All business operations specialists not listed separately.

Illustrative Examples: Grant Coordinator; Purser; Logistics Engineer; Employee Relations Specialist; Personnel Arbitrator; Human Resource specialists, not specified

13-2011 Accountants and Auditors

Examine, analyze, and interpret accounting records for the purpose of giving advice or preparing statements. Install or advise on systems of recording costs or other financial and budgetary data.

Illustrative Examples: Bursar; Certified Public Accountant; Tax Accountant

13-2021 Appraisers and Assessors of Real Estate

Appraise real property to determine its fair value. May assess taxes in accordance with prescribed schedules.

Illustrative Examples: Building Appraiser; County Assessor; Property Evaluator

13-2031 Budget Analysts

Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyze budgeting and accounting reports for the purpose of maintaining expenditure controls.

Illustrative Examples: Budget Examiner; Fiscal Agent; Fiscal Officer

13-2041 Credit Analysts

Analyze current credit data and financial statements of individuals or firms to determine the degree of risk involved in extending credit or lending money. Prepare reports with this credit information for use in decision-making.

Illustrative Examples: Credit Negotiator; Escrow Representative; Factorer

13-2051 Financial Analysts

Conduct quantitative analyses of information affecting investment programs of public or private institutions.

Illustrative Examples: Bond Analyst; Investment Analyst; Securities Consultant

13-2052 Personal Financial Advisors

Advise clients on financial plans utilizing knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, tax status, and financial objectives to establish investment strategies.

Illustrative Examples: Budget Counselor; Financial Planner; Estate Planner

13-2053 Insurance Underwriters

Review individual applications for insurance to evaluate degree of risk involved and determine acceptance of applications.

Illustrative Examples: Bond Underwriter; Insurance Analyst

13-2061 Financial Examiners

Enforce or ensure compliance with laws and regulations governing financial and securities institutions and financial and real estate transactions.

May examine, verify correctness of, or establish authenticity of records.

Illustrative Examples: Bank Examiner; Payroll Examiner; Pension Examiner

13-2071 Loan Counselors

Provide guidance to prospective loan applicants who have problems qualifying for traditional loans. Guidance may include determining the best type of loan and explaining loan requirements or restrictions.

Illustrative Examples: Credit Counselor; Farm Mortgage Agent; Financial Aid Counselor

13-2072 Loan Officers

Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and methods of payments. Include mortgage loan officers and agents, collection analysts, loan servicing officers, and loan underwriters.

Illustrative Examples: Loan Reviewer; Escrow Officer; Mortgage Consultant

13-2081 Tax Examiners, Collectors, and Revenue Agents

Determine tax liability or collect taxes from individuals or business firms according to prescribed laws and regulations.

Illustrative Examples: Tax Investigator; Revenue Agent; Tax Auditor

13-2082 Tax Preparers

Prepare tax returns for individuals or small businesses but do not have the background or responsibilities of an accredited or certified public accountant.

Illustrative Examples: Income Tax Advisor; Income Tax Consultant; Tax Specialist

13-2099 Financial Specialists, All Other

All financial specialists not listed separately.

Illustrative Examples: Bail Bondsman; Executor of Estate; Foreign Exchange Trader

Computer and Mathematical

15-1011 Computer and Information Scientists, Research

Conduct research into fundamental computer and information science as theorists, designers, or inventors. Solve or develop solutions to problems in the field of computer hardware and software.

15-1021 Computer Programmers

Convert project specifications and statements of problems and procedures to detailed logical flow charts for coding into computer language. Develop and write computer programs to store, locate, and retrieve specific documents, data, and information. May program web sites.

Illustrative Examples: Computer Programmer Aide; Mainframe Programmer; Systems Programmer

15-1022 Computer Programmers, Non R&D (SIC 822 only)

15-1023 Computer Programmers, R&D (SIC 822 only)

15-1031 Computer Software Engineers, Applications

Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team. Exclude "Computer Hardware Engineers" (17-2061).

Illustrative Examples: Applications Developer; Programmer Analyst; Software Designer

15-1032 Computer Software Engineers, Systems Software

Research, design, develop, and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computing applications. Set operational specifications and formulate and analyze software requirements. Apply principles and techniques of computer science, engineering, and mathematical analysis.

Illustrative Example: EDP Systems Engineers

15-1041 Computer Support Specialists

Provide technical assistance to computer system users. Answer questions or resolve computer problems for clients in person, via telephone or from remote location. May provide assistance concerning the use of computer hardware and software, Inc. printing, installation, word processing, electronic mail, and operating systems. Exclude "Network and Computer Systems Administrators" (15-1071).

Illustrative Examples: Customer Support Analyst; Help Desk Technician; Work Station Support Specialist

15-1051 Computer Systems Analysts

Analyze science, engineering, business, and all other data processing problems for application to electronic data processing systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations. May analyze or recommend commercially available software. Exclude persons working primarily as “Engineers” (17-2011 through 17-2199), “Mathematicians” (15-2021), or “Scientists” (19-1011 through 19-3099). May supervise computer programmers.

Illustrative Examples: Health Systems Computer Analyst; Data Processing Systems Project Planner; Information Systems Consultant

15-1052 Computer Systems Analysts, Non R&D (SIC 822 only)

15-1053 Computer Systems Analysts, R&D (SIC 822 only)

15-1061 Database Administrators

Coordinate changes to computer databases, test and implement the database applying knowledge of database management systems. May plan, coordinate, and implement security measures to safeguard computer databases.

Illustrative Examples: Automatic Data Processing Planner; Database Design Analyst; Database Security Administrator

15-1071 Network and Computer Systems Administrators

Install, configure, and support an organization’s local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. Maintain network hardware and software. Monitor network to ensure network availability to all system users and perform necessary maintenance to support network availability. May supervise other network support and client server specialists and plan, coordinate, and implement network security measures. Exclude “Computer Support Specialists” (15-1041).

Illustrative Examples: LAN/WAN Administrator; Network Control Operator; Network Security Administrator

15-1081 Network Systems and Data Communications Analysts

Analyze, design, test, and evaluate network systems, such as local area networks (LAN), wide area networks

(WAN), Internet, intranet, and other data communications systems. Perform network modeling, analysis, and planning. Research and recommend network and data communications hardware and software. Include telecommunications specialists who deal with the interfacing of computer and communications equipment. May supervise computer programmers.

Illustrative Examples: Internet Developer; Systems Integrator; Webmaster

15-1099 Computer Specialists, All Other

All computer specialists not listed separately.

Illustrative Example: Computer Laboratory Technician

15-2011 Actuaries

Analyze statistical data, such as mortality, accident, sickness, disability, and retirement rates and construct probability tables to forecast risk and liability for payment of future benefits. May ascertain premium rates required and cash reserves necessary to ensure payment of future benefits.

Illustrative Example: Actuarial Mathematician

15-2021 Mathematicians

Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve or direct solutions to problems in various fields by mathematical methods.

Illustrative Examples: Algebraist; Cipher Expert; Cryptographer

15-2031 Operations Research Analysts

Formulate and apply mathematical modeling and other optimizing methods using a computer to develop and interpret information that assists management with decision making, policy formulation, or other managerial functions. May develop related software, service, or products. Frequently concentrates on collecting and analyzing data and developing decision support software. May develop and supply optimal time, cost, or logistics networks for program evaluation, review, or implementation.

Illustrative Examples: Procedure Analyst; Method Consultant; Standards Analyst

15-2041 Statisticians

Engage in the development of mathematical theory or apply statistical theory and methods to collect, organize, interpret, and summarize numerical data to provide usable information. May specialize in fields,

such as bio-statistics, agricultural statistics, business statistics, economic statistics, or other fields. Include mathematical statisticians.

Illustrative Examples: Biometrician; Sampling Expert; Statistical Analyst

15-2091 Mathematical Technicians

Apply standardized mathematical formulas, principles, and methodology to technological problems in engineering and physical sciences in relation to specific industrial and research objectives, processes, equipment, and products.

15-2099 Mathematical Scientists, All Other

All mathematical scientists not listed separately.

Illustrative Examples: Geometrician; Harmonic Analyst; Weight Analyst

15-3011 Mathematical Technicians (OES Code Only –Same as Code 15-2091)

15-9099 Mathematical Occupations, All Other (OES code only)

Illustrative Examples: Geometrician; Weight Analyst

Architecture and Engineering

17-1011 Architects, Ex. Landscape and Naval

Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property.

Illustrative Examples: Architectural Designer; Building Consultant; Site Planner

17-1012 Landscape Architects

Plan and design land areas for such projects as parks and other recreational facilities, airports, highways, hospitals, schools, land subdivisions, and commercial, industrial, and residential sites.

Illustrative Examples: Environmental Planner; Land Planner; Landscape Designer

17-1021 Cartographers and Photogrammetrists

Collect, analyze, and interpret geographic information provided by geodetic surveys, aerial photographs, and satellite data. Research, study, and prepare maps and other spatial data in digital or graphic form for legal, social, political, educational, and design purposes. May work with Geographic Information Systems (GIS). May design and evaluate algorithms, data structures, and

user interfaces for GIS and mapping systems.

Illustrative Examples: Field Map Editor; Mapper; Topographer

17-1022 Surveyors

Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering, mapmaking, mining, land evaluation, construction, and other purposes.

Illustrative Examples: Geodetic Surveyor; Land Examiner; Mineral Surveyor

17-1099 Architects, Surveyors, and Cartographers, All Other (OES code only)

17-2001 Engineers, Non R&D (SIC 822 only)

17-2002 Engineers, R&D (SIC 822 only)

17-2011 Aerospace Engineers

Perform a variety of engineering work in designing, constructing, and testing aircraft, missiles, and spacecraft. May conduct basic and applied research to evaluate adaptability of materials and equipment to aircraft design and manufacture. May recommend improvements in testing equipment and techniques.

Illustrative Examples: Aerodynamicist; Flight Test Engineer; Aeronautical Engineer

17-2021 Agricultural Engineers

Apply knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing of agricultural products.

Illustrative Examples: Farm Equipment Engineer; Agricultural Research Engineer

17-2031 Biomedical Engineers

Apply knowledge of engineering, biology, and biomechanical principles to the design, development, and evaluation of biological and health systems and products, such as artificial organs, prostheses, instrumentation, medical information systems, and health management and care delivery systems.

Illustrative Example: Orthopedic Designer

17-2041 Chemical Engineers

Design chemical plant equipment and devise processes for manufacturing chemicals and products,

such as gasoline, synthetic rubber, plastics, detergents, cement, paper, and pulp, by applying principles and technology of chemistry, physics, and engineering.

Illustrative Examples: Absorption and Adsorption Engineer; Explosives Engineer; Fuels Engineer

17-2051 Civil Engineers

Perform engineering duties in planning, designing, and overseeing construction and maintenance of building structures, and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, water and sewage systems, and waste disposal units. Include architectural, structural, traffic, ocean, and geo-technical engineers. Exclude "Hydrologists" (19-2043).

Illustrative Examples: Bridge Engineer; Construction Engineer; Concrete Engineer

17-2061 Computer Hardware Engineers

Research, design, develop, and test computer or computer-related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components. Exclude "Computer Software Engineers, Applications" (15-1031) and "Computer Software Engineers, Systems Software" (15-1032).

17-2071 Electrical Engineers

Design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use. Exclude "Computer Hardware Engineers" (17-2061).

Illustrative Examples: Power Distribution Engineer; Illuminating Engineer; Relay Engineer

17-2072 Electronics Engineers, Ex. Computer

Research, design, develop, and test electronic components and systems for commercial, industrial, military, or scientific use utilizing knowledge of electronic theory and materials properties. Design electronic circuits and components for use in fields such as telecommunications, aerospace guidance and propulsion control, acoustics, or instruments and controls. Exclude "Computer Hardware Engineers" (17-2061).

Illustrative Examples: Communications Engineer; Circuit Design Engineer; Guidance and Control Systems Engineer

17-2081 Environmental Engineers

Design, plan, or perform engineering duties in the prevention, control, and remediation of environmental health hazards utilizing various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology.

Illustrative Examples: Soil Engineer; Industrial Hygiene Engineer; Pollution Control Engineer

17-2111 Health and Safety Engineers, Ex. Mining Safety Engineers and Inspectors

Promote worksite or product safety by applying knowledge of industrial processes, mechanics, chemistry, psychology, and industrial health and safety laws. Include industrial product safety engineers.

Illustrative Examples: Fire-Protection Engineer; Industrial Health Engineer Product Safety Engineer

17-2112 Industrial Engineers

Design, develop, test, and evaluate integrated systems for managing industrial production processes. Include human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination. Exclude "Health and Safety Engineers, Ex. Mining Safety Engineers and Inspectors" (17-2111).

Illustrative Examples: Packaging Engineer; Time Study Engineer; Plant Engineer

17-2121 Marine Engineers and Naval Architects

Design, develop, and evaluate the operation of marine vessels, ship machinery, and related equipment, such as power supply and propulsion systems.

Illustrative Examples: Marine Architect; Port Engineer; Ship Surveyor

17-2131 Materials Engineers

Evaluate materials and develop machinery and processes to manufacture materials for use in products that must meet specialized design and performance specifications. Develop new uses for known materials. Include those working with composite materials or specializing in one type of material, such as graphite, metal and metal alloys, ceramics and glass, plastics and polymers, and naturally occurring materials. Include metallurgists and metallurgical engineers, ceramic engineers, and welding engineers.

Illustrative Examples: Ceramic Engineer; Corrosion Engineer; Metallurgical Engineer

17-2141 Mechanical Engineers

Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of such equipment as centralized heat, gas, water, and steam systems.

Illustrative Examples: Combustion Engineer; Plant Equipment Engineer; Hydraulic Engineer

17-2151 Mining and Geological Engineers, Inc. Mining Safety Engineers

Determine the location and plan the extraction of coal, metallic ores, nonmetallic minerals, and building materials, such as stone and gravel. Work involves conducting preliminary surveys of deposits or undeveloped mines and planning their development; examining deposits or mines to determine whether they can be worked at a profit; making geological and topographical surveys; evolving methods of mining best suited to character, type, and size of deposits; and supervising mining operations.

Illustrative Examples: Exploration Engineer; Mineral Engineer; Mine Equipment Design Engineer

17-2161 Nuclear Engineers

Conduct research on nuclear engineering problems or apply principles and theory of nuclear science to problems concerned with release, control, and utilization of nuclear energy and nuclear waste disposal.

Illustrative Examples: Atomic Process Engineer; Radiation Engineer; Reactor Engineer

17-2171 Petroleum Engineers

Devise methods to improve oil and gas well production and determine the need for new or modified tool designs. Oversee drilling and offer technical advice to achieve economical and satisfactory progress.

Illustrative Examples: Drilling Engineer; Natural Gas Engineer; Oil Well Surveying Engineer

17-2199 Engineers, All Other

All engineers not listed separately.

Illustrative Examples: Optical Engineer; Salvage Engineer; Ordnance Engineer

17-3001 Drafters, Engineering, and Mapping Technicians, Non R&D (SIC 822 only)

17-3002 Drafters, Engineering, and Mapping Technicians, R&D (SIC 822 only)

17-3011 Architectural and Civil Drafters

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Utilize knowledge of building materials, engineering practices, and mathematics to complete drawings.

Illustrative Example: Structural Drafter

17-3012 Electrical and Electronics Drafters

Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for manufacture, installation, and repair of electrical equipment in factories, power plants, and buildings.

17-3013 Mechanical Drafters

Prepare detailed working diagrams of machinery and mechanical devices, Inc. dimensions, fastening methods, and other engineering information.

Illustrative Examples: Die Designer; Aeronautical Drafter

17-3019 Drafters, All Other

All drafters not listed separately.

Illustrative Examples: Geological Drafter; Hull Drafter

17-3021 Aerospace Engineering and Operations Technicians

Operate, install, calibrate, and maintain integrated computer/communications systems consoles, simulators, and other data acquisition, test, and measurement instruments and equipment to launch, track, position, and evaluate air and space vehicles. May record and interpret test data.

Illustrative Examples: Wind Tunnel Technician; Flight Data Technician; Altitude Chamber Technician

17-3022 Civil Engineering Technicians

Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff or physical scientists.

Illustrative Example: Highway Technician

17-3023 Electrical and Electronic Engineering Technicians

Apply electrical and electronic theory and related knowledge, usually under the direction of engineering staff, to design, build, repair, calibrate, and modify electrical components, circuitry, controls, and machinery for subsequent evaluation and use by

engineering staff in making engineering design decisions. Exclude “Broadcast Technicians” (27-4012).

Illustrative Examples: Calibration Laboratory Technician; Semiconductor Development Technician; Instrumentation Technician

17-3024 Electro-Mechanical Technicians

Operate, test, and maintain unmanned, automated, servo-mechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment at worksites, such as oil rigs, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.

17-3025 Environmental Engineering Technicians

Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental pollution, Inc. waste treatment and site remediation. May assist in the development of environmental pollution remediation devices under direction of engineer.

Illustrative Examples: Air Analysis Technician; Soil Technician

17-3026 Industrial Engineering Technicians

Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May study and record time, motion, method, and speed involved in performance of production, maintenance, clerical, and other worker operations for such purposes as establishing standard production rates or improving efficiency.

Illustrative Examples: Methods Study Analyst; Quality Control Technician; Time Study Analyst

17-3027 Mechanical Engineering Technicians

Apply theory and principles of mechanical engineering to modify, develop, and test machinery and equipment under direction of engineering staff or physical scientists.

Illustrative Examples: Heat Transfer Technician; Optomechanical Technician; Tool Analyst

17-3029 Engineering Technicians, Ex. Drafters, All Other

All engineering technicians, Ex. drafters, not listed separately.

Illustrative Examples: Laser Specialist; Metallurgical Technician; Material Stress Tester

17-3031 Surveying and Mapping Technicians

Perform surveying and mapping duties, usually under the direction of a surveyor, cartographer, or photogrammetrist to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. May calculate mapmaking information and create maps from source data, such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features. May verify accuracy and completeness of topographical maps. Exclude “Surveyors” (17-1022), “Cartographers and Photogrammetrists” (17-1021), and “Geoscientists, Ex. Hydrologists and Geographers” (19-2042).

Illustrative Examples: Cartographic Technician; Map Drafter; Stereo Map Plotter Operator

17-3099 Drafters, Engineering, and Mapping Technicians, All Other (OES code only).

Life, Physical, and Social Science

19-1001 Life Scientists, Non R&D (SIC 822 only)

19-1002 Life Scientists, R&D (SIC 822 only)

19-1010 Agricultural and Food Scientists

This broad occupation includes the following three detailed occupations (see below)

Illustrative Examples: Dairy Scientist; Food Scientists; Agronomist; Plant Pathologist; Pomologist

19-1011 (SOC code only) Animal Scientists

Conduct research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals.

19-1012 (SOC code only) Food Scientists and Technologists

Use chemistry, microbiology, engineering, and other sciences to study the principles underlying the processing and deterioration of foods; analyze food content to determine levels of vitamins, fat, sugar, and protein; discover new food sources; research ways to make processed foods safe, palatable, and healthful; and apply food science knowledge to determine best ways to process, package, preserve, store, and distribute food.

19-1013 Soil and Plant Scientists (SOC code only)

Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.

19-1021 Biochemists and Biophysicists

Study the chemical composition and physical principles of living cells and organisms, their electrical and mechanical energy, and related phenomena. May conduct research to further understanding of the complex chemical combinations and reactions involved in metabolism, reproduction, growth, and heredity. May determine the effects of foods, drugs, serums, hormones, and other substances on tissues and vital processes of living organisms.

19-1022 Microbiologists

Investigate the growth, structure, development, and other characteristics of microscopic organisms, such as bacteria, algae, or fungi. Include medical microbiologists who study the relationship between organisms and disease or the effects of antibiotics on microorganisms.

Illustrative Examples: Bacteriologist; Cytologist; Virologist

19-1023 Zoologists and Wildlife Biologists

Study the origins, behavior, diseases, genetics, and life processes of animals and wildlife. May specialize in wildlife research and management, Inc. the collection and analysis of biological data to determine the environmental effects of present and potential use of land and water areas.

Illustrative Examples: Ecologist; Herpetologist; Ornithologist

19-1029 Biological Scientists, All Other

All biological scientists not listed separately.

Illustrative Examples: Geneticist; Paleobotanist; Plant Taxonomist

19-1031 Conservation Scientists

Manage, improve, and protect natural resources to maximize their use without damaging the environment. May conduct soil surveys and develop plans to eliminate soil erosion or to protect rangelands from fire

and rodent damage. May instruct farmers, agricultural production managers, or ranchers in best ways to use crop rotation, contour plowing, or terracing to conserve soil and water; in the number and kind of livestock and forage plants best suited to particular ranges; and in range and farm improvements, such as fencing and reservoirs for stock watering. Exclude "Zoologists and Wildlife Biologists" (19-1023) and "Foresters" (19-1032).

Illustrative Examples: Range Manager; Conservation Officer

19-1032 Foresters

Manage forested lands for economic, recreational, and conservation purposes. May inventory the type, amount, and location of standing timber, appraise the timber's worth, negotiate the purchase, and draw up contracts for procurement. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability, and how best to comply with environmental regulations. May devise plans for planting and growing new trees, monitor trees for healthy growth, and determine the best time for harvesting. Develop forest management plans for public and privately owned forested lands.

Illustrative Examples: Forest Ecologist; Timber Management Specialist

19-1041 Epidemiologists

Investigate and describe the determinants and distribution of disease, disability, and other health outcomes and develop the means for prevention and control.

Illustrative Example: Malariologist

19-1042 Medical Scientists, Ex. Epidemiologists

Conduct research dealing with the understanding of human diseases and the improvement of human health. Engage in clinical investigation or other research, production, technical writing, or related activities. Include medical scientists such as physicians, dentists, public health specialists, pharmacologists, and medical pathologists. Exclude practitioners who provide medical or dental care or dispense drugs.

Illustrative Examples: Cancer Researcher; Toxicologist; Virologist

19-1099 Life Scientists, All Other

All life scientists not listed separately.

Illustrative Examples: Biological Scientist, not specified; Paleobotanist; Geneticist

19-2001 Physical Scientists, Non R&D (SIC 822 only)

19-2002 Physical Scientists, R&D (SIC 822 only)

19-2011 Astronomers

Observe, research, and interpret celestial and astronomical phenomena to increase basic knowledge and apply such information to practical problems.

19-2012 Physicists

Conduct research into the phases of physical phenomena, develop theories and laws on the basis of observation and experiments, and devise methods to apply laws and theories to industry and other fields.

Illustrative Examples: Fluid Dynamicist; Rheologist; Thermodynamicist

19-2021 Atmospheric and Space Scientists

Investigate atmospheric phenomena and interpret meteorological data gathered by surface and air stations, satellites, and radar to prepare reports and forecasts for public and other uses. Include weather analysts and forecasters whose functions require the detailed knowledge of a meteorologist.

Illustrative Examples: Climatologist; Meteorologist; Weather Forecaster

19-2031 Chemists

Conduct qualitative and quantitative chemical analyses or chemical experiments in laboratories for quality or process control or to develop new products or knowledge. Exclude "Geoscientists, Ex. Hydrologists and Geographers" (19-2042) and "Biochemists and Biophysicists" (19-1021).

Illustrative Examples: Inorganic Chemist; Chemical Analyst

19-2032 Materials Scientists

Research and study the structures and chemical properties of various natural and manmade materials, Inc. metals, alloys, rubber, ceramics, semiconductors, polymers, and glass. Determine ways to strengthen or combine materials or develop new materials with new or specific properties for use in a variety of products and applications. Include glass scientists, ceramic scientists, metallurgical scientists, and polymer scientists.

19-2041 Environmental Scientists and Specialists, Inc. Health

Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources

of pollutants or hazards that affect either the environment or the health of the population. Utilizing knowledge of various scientific disciplines may collect, synthesize, study, report, and take action based on data derived from measurements or observations of air, food, soil, water, and other sources. Exclude "Zoologists and Wildlife Biologists" (19-1023), "Conservation Scientists" (19-1031), "Forest and Conservation Technicians" (19-4093), "Fish and Game Wardens" (33-3031), and "Forest and Conservation Workers" (45-4011).

Illustrative Examples: Environmental Analyst; Water Pollution Specialist

19-2042 Geoscientists, Ex. Hydrologists and Geographers

Study the composition, structure, and other physical aspects of the earth. May use geological, physics, and mathematics knowledge in exploration for oil, gas, minerals, or underground water; or in waste disposal, land reclamation, or other environmental problems. May study the earth's internal composition, atmospheres, oceans, and its magnetic, electrical, and gravitational forces. Include mineralogists, crystallographers, paleontologists, stratigraphers, geodesists, and seismologists.

Illustrative Examples: Oceanographer; Paleontologist; Seismologist

19-2043 Hydrologists

Research the distribution, circulation, and physical properties of underground and surface waters; study the form and intensity of precipitation, its rate of infiltration into the soil, movement through the earth, and its return to the ocean and atmosphere.

Illustrative Example: Hydrogeologist

19-2099 Physical Scientists, All Other

All physical scientists not listed separately.

19-3001 Social Scientists, Non R&D (SIC 822 only)

19-3002 Social Scientists, R&D (SIC 822 only)

19-3011 Economists

Conduct research, prepare reports, or formulate plans to aid in solution of economic problems arising from production and distribution of goods and services. May collect and process economic and statistical data using econometric and sampling techniques. Exclude "Market Research Analysts" (19-3021).

Illustrative Examples: Econometrician; Economic Research Analyst; Industrial Economist

19-3021 Market Research Analysts

Research market conditions in local, regional, or national areas to determine potential sales of a product or service. May gather information on competitors, prices, sales, and methods of marketing and distribution. May use survey results to create a marketing campaign based on regional preferences and buying habits.

Illustrative Examples: Advertising Analyst; Marketing Consultant; Marketing Forecaster

19-3022 Survey Researchers

Design or conduct surveys. May supervise interviewers who conduct the survey in person or over the telephone. May present survey results to client. Exclude “Statisticians” (15-2041), “Economists” (19-3011), and “Market Research Analysts” (19-3021).

Illustrative Example: Pollster

19-3031 Clinical, Counseling, and School Psychologists

Diagnose and treat mental disorders; learning disabilities; and cognitive, behavioral, and emotional problems using individual, child, family, and group therapies. May design and implement behavior modification programs.

Illustrative Examples: Vocational Psychologist; Child Psychologist

19-3032 Industrial-Organizational Psychologists

Apply principles of psychology to personnel, administration, management, sales, and marketing problems. Activities may include policy planning; employee screening, training and development; and organizational development and analysis. May work with management to reorganize the work setting to improve worker productivity.

Illustrative Example: Engineering Psychologist

19-3036 Clinical, Counseling, and School Psychologists, Non R&D (SIC 822 only)

19-3037 Clinical, Counseling, and School Psychologists, R&D (SIC 822 only)

19-3039 Psychologists, All Other

All psychologists not listed separately.

Illustrative Examples: Social Psychologist; Psychometrist

19-3041 Sociologists

Study human society and social behavior by examining the groups and social institutions that people form, as well as various social, religious, political, and business organizations. May study the behavior and interaction of groups, trace their origin and growth, and analyze the influence of group activities on individual members.

Illustrative Examples: Criminologist; Penologist; Social Welfare Research Worker

19-3051 Urban and Regional Planners

Develop comprehensive plans and programs for use of land and physical facilities of local jurisdictions, such as towns, cities, counties, and metropolitan areas.

Illustrative Example: City Planner

19-3091 Anthropologists and Archeologists

Study the origin, development, and behavior of humans. May study the way of life, language, or physical characteristics of existing people in various parts of the world. May engage in systematic recovery and examination of material evidence, such as tools or pottery remaining from past human cultures, in order to determine the history, customs, and living habits of earlier civilizations.

Illustrative Example: Political Anthropologist

19-3092 Geographers

Study nature and use of areas of earth's surface, relating and interpreting interactions of physical and cultural phenomena. Conduct research on physical aspects of a region, Inc. land forms, climates, soils, plants and animals, and conduct research on the spatial implications of human activities within a given area, Inc. social characteristics, economic activities, and political organization, as well as researching interdependence between regions at scales ranging from local to global.

19-3093 Historians

Research, analyze, record, and interpret the past as recorded in sources, such as government and institutional records, newspapers and other periodicals, photographs, interviews, films, and unpublished manuscripts, such as personal diaries and letters.

Illustrative Examples: Genealogist; Historical Society Director

19-3094 Political Scientists

Study the origin, development, and operation of political systems. Research a wide range of subjects,

such as relations between the United States and foreign countries, the beliefs and institutions of foreign nations, or the politics of small towns or a major metropolis. May study topics, such as public opinion, political decision making, and ideology. May analyze the structure and operation of governments, as well as various political entities. May conduct public opinion surveys, analyze election results, or analyze public documents.

Illustrative Examples: Political Analyst; Political Consultant

19-3099 Social Scientists and Related Workers, All Other

All social scientists and related workers not listed separately.

*Illustrative Examples: Ethnologist; Linguist; Philologist
Social Psychologist; Psychometrist; Psychologists, not specified*

19-4001 Life, Physical, and Social Science Technicians, Non R&D (SIC 822 only)

19-4002 Life, Physical, and Social Science Technicians, R&D (SIC 822 only)

19-4011 Agricultural and Food Science Technicians

Work with agricultural scientists in food, fiber, and animal research, production, and processing; assist with animal breeding and nutrition work; under supervision, conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects. Include technicians who assist food scientists or food technologists in the research, development, production technology, quality control, packaging, processing, and use of foods.

Illustrative Examples: Inseminator; Feed Research Technician; Dairy Technologist

19-4021 Biological Technicians

Assist biological and medical scientists in laboratories. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.

Illustrative Examples: Biotechnologist; Wildlife Technician Specimen Technician

19-4031 Chemical Technicians

Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative

analyses of solids, liquids, and gaseous materials for purposes, such as research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences.

Illustrative Examples: Assayer; Fiber Analyst; Paint Tester

19-4041 Geological and Petroleum Technicians

Assist scientists in the use of electrical, sonic, or nuclear measuring instruments in both laboratory and production activities to obtain data indicating potential sources of metallic ore, gas, or petroleum. Analyze mud and drill cuttings. Chart pressure, temperature, and other characteristics of wells or bore holes. Investigate and collect information leading to the possible discovery of new oil fields.

Illustrative Examples: Field Scout; Crude Tester; Seismic Observer

19-4051 Nuclear Technicians

Assist scientists in both laboratory and production activities by performing technical tasks involving nuclear physics, primarily in operation, maintenance, production, and quality control support activities.

Illustrative Examples: Accelerator Operator; Radiation Monitor

19-4061 Social Science Research Assistants

Assist social scientists in laboratory, survey, and other social research. May perform publication activities, laboratory analysis, quality control, or data management. Normally these individuals work under the direct supervision of a social scientist and assist in those activities which are more routine. Exclude "Graduate Teaching Assistants" (25-1191) who both teach and do research.

Illustrative Examples: City Planning Aide; Economic Research Assistant; Historian Research Assistant

19-4091 Environmental Science and Protection Technicians, Inc. Health

Performs laboratory and field tests to monitor the environment and investigate sources of pollution, Inc. those that affect health. Under direction of an environmental scientist or specialist, may collect samples of gases, soil, water, and other materials for testing and take corrective actions as assigned.

Illustrative Example: Pollution Control Technician

19-4092 Forensic Science Technicians

Collect, identify, classify, and analyze physical evidence related to criminal investigations. Perform tests on weapons or substances, such as fiber, hair, and tissue to determine significance to investigation. May testify as expert witnesses on evidence or crime laboratory techniques. May serve as specialists in area of expertise, such as ballistics, fingerprinting, handwriting, or biochemistry.

Illustrative Examples: Ballistic Expert; Fingerprint Classifier; Polygraph Examiner

19-4093 Forest and Conservation Technicians

Compile data pertaining to size, content, condition, and other characteristics of forest tracts, under direction of foresters; train and lead forest workers in forest propagation, fire prevention and suppression. May assist conservation scientists in managing, improving, and protecting rangelands and wildlife habitats, and help provide technical assistance regarding the conservation of soil, water, and related natural resources.

Illustrative Examples: Grazing Examiner; Soil Tester; Tree Warden

19-4099 Life, Physical, and Social Science Technicians, All Other

All life, physical, and social science technicians not listed separately.

Illustrative Examples: Social Science Research Assistant; City Planning Aide; Economic Research Assistant; Historian Research Assistant; Radiographer; Laser Technician; Meteorological Aide

Community and Social Service

21-1011 Substance Abuse and Behavioral Disorder Counselors

Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs. Exclude "Social Workers" (21-1021 through 21-1029), "Psychologists" (19-3031 through 19-3039), and "Mental Health Counselors" (21-1014) providing these services.

Illustrative Examples: Addiction Counselor; Chemical Dependency Counselor; Drug Counselor

21-1012 Educational, Vocational, and School Counselors

Counsel individuals and provide group educational and vocational guidance services.

Illustrative Examples: Curriculum Counselor; Guidance Counselor; Educational Adviser

21-1013 Marriage and Family Therapists

Diagnose and treat mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Apply psychotherapeutic and family systems theories and techniques in the delivery of professional services to individuals, couples, and families for the purpose of treating such diagnosed nervous and mental disorders. Exclude "Social Workers" (21-1021 through 21-1029) and "Psychologists" of all types (19-3031 through 19-3039).

Illustrative Examples: Family Counselor; Marriage Counselor

21-1014 Mental Health Counselors

Counsel with emphasis on prevention. Work with individuals and groups to promote optimum mental health. May help individuals deal with addictions and substance abuse; family, parenting, and marital problems; suicide; stress management; problems with self-esteem; and issues associated with aging and mental and emotional health. Exclude "Social Workers" (21-1021 through 21-1029), "Psychiatrists" (29-1066), and "Psychologists" (19-3031 through 19-3039).

21-1015 Rehabilitation Counselors

Counsel individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, or the stress of daily life. Coordinate activities for residents of care and treatment facilities. Assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, training, and job placement.

Illustrative Examples: Coordinator of Rehabilitation Services; Homemaking Rehabilitation Consultant

21-1019 Counselors, All Other

All counselors not listed separately.

Illustrative Examples: Mental Hygienist; Race Relations Adviser

21-1021 Child, Family, and School Social Workers

Provide social services and assistance to improve the social and psychological functioning of children and their families and to maximize the family well-being and the academic functioning of children. May assist single parents, arrange adoptions, and find foster homes for abandoned or abused children. In schools, they address such problems as teenage pregnancy, misbehavior, and truancy. May also advise teachers on how to deal with problem children.

Illustrative Examples: Adoption Agent; Child Abuse Worker; Foster Care Worker

21-1022 Medical and Public Health Social Workers

Provide persons, families, or vulnerable populations with the psychosocial support needed to cope with chronic, acute, or terminal illnesses, such as Alzheimer's, cancer, or AIDS. Services include advising family care givers, providing patient education and counseling, and making necessary referrals for other social services.

Illustrative Examples: Bereavement Counselor; Hospice Social Worker; Medical Caseworker

21-1023 Mental Health and Substance Abuse Social Workers

Assess and treat individuals with mental, emotional, or substance abuse problems, Inc. abuse of alcohol, tobacco, and/or other drugs. Activities may include individual and group therapy, crisis intervention, case management, client advocacy, prevention, and education.

Illustrative Examples: Community Mental Health Worker; Psychiatric Social Worker

21-1029 Social Workers, All Other

All social workers not listed separately.

Illustrative Examples: Case Worker; Case Supervisor; Welfare Investigator

21-1091 Health Educators

Promote, maintain, and improve individual and community health by assisting individuals and communities to adopt healthy behaviors. Collect and analyze data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies and environments. May also serve as a resource to assist individuals, other professionals, or the community, and may administer fiscal resources for health education programs.

Illustrative Examples: Public Health Advisor; Public Health Representative

21-1092 Probation Officers and Correctional Treatment Specialists

Provide social services to assist in rehabilitation of law offenders in custody or on probation or parole. Make recommendations for actions involving formulation of rehabilitation plan and treatment of offender, Inc. conditional release and education and employment stipulations.

Illustrative Examples: Attendance Officer; Parole Officer

21-1093 Social and Human Service Assistants

Assist professionals from a wide variety of fields, such as psychology, rehabilitation, or social work, to provide client services, as well as support for families. May assist clients in identifying available benefits and social and community services and help clients obtain them. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or adult daycare. Exclude "Rehabilitation Counselors" (21-1015), "Personal and Home Care Aides" (39-9021), "Eligibility Interviewers, Government Programs" (43-4061), and "Psychiatric Technicians" (29-2053).

Illustrative Examples: Case Aide; Home Visitor; Human Services Worker

21-1096 Health Educators, Non R&D (SIC 822 only)

21-1097 Health Educators, R&D (SIC 822 only)

21-1099 Community and Social Service Specialists, All Other

All community and social service specialists not listed separately.

Illustrative Examples: Community Organization Worker; Veteran's Service Officer

21-2011 Clergy

Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination. Provide spiritual and moral guidance and assistance to members.

Illustrative Examples: Bishop; Parish Priest; Rabbi

21-2021 Directors, Religious Activities and Education

Direct and coordinate activities of a denominational group to meet religious needs of students. Plan, direct, or coordinate church school programs designed to

promote religious education among church membership. May provide counseling and guidance relative to marital, health, financial, and religious problems.

Illustrative Examples: Director of Religious Education; Minister of Education; Youth Director

21-2099 Religious Workers, All Other

All religious workers not listed separately.

Illustrative Examples: Religious Healer; Ecclesiastical Worker; Missionary

21-9099 Counselors, Social and Religious Workers, All Other (OES code only)

Illustrative Examples: Race Relations Advisor; Welfare Investigator; Case Supervisor; Veteran's Service Officer; Community Organization Worker

Legal

23-1011 Lawyers

Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, and manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.

Illustrative Examples: Attorney; Real Estate Attorney; Corporate Counsel

23-1021 Administrative Law Judges, Adjudicators, and Hearing Officers

Conduct hearings to decide or recommend decisions on claims concerning government programs or other government-related matters and prepare decisions. Determine penalties or the existence and the amount of liability, or recommend the acceptance or rejection of claims, or compromise settlements.

Illustrative Examples: Adjudicator; Traffic Court Referee

23-1022 Arbitrators, Mediators, and Conciliators

Facilitate negotiation and conflict resolution through dialogue. Resolve conflicts outside of the court system by mutual consent of parties involved.

Illustrative Example: Ombudsman

23-1023 Judges, Magistrate Judges, and Magistrates

Arbitrate, advise, adjudicate, or administer justice in a court of law. May sentence defendant in criminal cases according to government statutes. May determine

liability of defendant in civil cases. May issue marriage licenses and perform wedding ceremonies.

Illustrative Examples: Circuit Court Judge; Jurist; Justice

23-2011 Paralegals and Legal Assistants

Assist lawyers by researching legal precedent, investigating facts, or preparing legal documents. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action.

Illustrative Examples: Legal Assistant; Legal Investigator

23-2091 Court Reporters

Use verbatim methods and equipment to capture, store, retrieve, and transcribe pretrial and trial proceedings or other information. Include stenocaptioners who operate computerized stenographic captioning equipment to provide captions of live or prerecorded broadcasts for hearing-impaired viewers.

Illustrative Examples: Court Transcriber; Stenocaptioner; Mask Reporter

23-2092 Law Clerks

Assist lawyers or judges by researching or preparing legal documents. May meet with clients or assist lawyers and judges in court. Exclude "Lawyers" (23-1011) and "Paralegals and Legal Assistants" (23-2011).

Illustrative Example: Legal Clerk

23-2093 Title Examiners, Abstractors, and Searchers

Search real estate records, examine titles, or summarize pertinent legal or insurance details for a variety of purposes. May compile lists of mortgages, contracts, and other instruments pertaining to titles by searching public and private records for law firms, real estate agencies, or title insurance companies.

Illustrative Examples: Abstract Clerk; Escrow Officer; Lien Searcher

23-2099 Legal Support Workers, All Other

All legal support workers not listed separately.

Illustrative Examples: Brief Writer; Legislative Aide; Patent Examiner

23-9099 Legal and Related Workers, All Other (OES code only)

Education, Training, and Library

25-1011 Business Teachers, Postsecondary

Teach courses in business administration and management, such as accounting, finance, human resources, labor relations, marketing, and operations research. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Accounting Teacher; Marketing Teacher; Shorthand Teacher

25-1021 Computer Science Teachers, Postsecondary

Teach courses in computer science. May specialize in a field of computer science, such as the design and function of computers or operations and research analysis. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

25-1022 Mathematical Science Teachers, Postsecondary

Teach courses pertaining to mathematical concepts, statistics, and actuarial science and to the application of original and standardized mathematical techniques in solving specific problems and situations. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Actuarial Science Teacher; Calculus Teacher; Geometry Teacher

25-1031 Architecture Teachers, Postsecondary

Teach courses in architecture and architectural design, such as architectural environmental design, interior architecture/design, and landscape architecture. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Example: Landscape Architecture Teacher

25-1032 Engineering Teachers, Postsecondary

Teach courses pertaining to the application of physical laws and principles of engineering for the development of machines, materials, instruments, processes, and services. Include teachers of subjects, such as chemical, civil, electrical, industrial, mechanical, mineral, and petroleum engineering. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and

research. Exclude "Computer Science Teachers, Postsecondary" (25-1021).

Illustrative Examples: Aeronautics Engineering Teacher; Civil Engineering Teacher; Electrical Engineering Teacher

25-1041 Agricultural Sciences Teachers, Postsecondary

Teach courses in the agricultural sciences. Include teachers of agronomy, dairy sciences, fisheries management, horticultural sciences, poultry sciences, range management, and agricultural soil conservation. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Dairy Science Teacher; Farm Management Teacher; Agricultural Soil Conservation Teacher

25-1042 Biological Science Teachers, Postsecondary

Teach courses in biological sciences. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Bacteriology Teacher; Biochemistry Teacher; Genetics Teacher

25-1043 Forestry and Conservation Science Teachers, Postsecondary

Teach courses in environmental and conservation science. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research. Exclude "Agricultural Science Teachers" (25-1041).

Illustrative Examples: Forest Management Teacher; Forest Pathology Teacher

25-1051 Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary

Teach courses in the physical sciences, Ex. chemistry and physics. Include both teachers primarily engaged in teaching, and those who do a combination of both teaching and research.

Illustrative Examples: Climatology Teacher; Geology Teacher; Oceanography Teacher

25-1052 Chemistry Teachers, Postsecondary

Teach courses pertaining to the chemical and physical properties and compositional changes of substances. Work may include instruction in the methods of qualitative and quantitative chemical

analysis. Include both teachers primarily engaged in teaching, and those who do a combination of both teaching and research. Exclude “Biological Science Teachers, Postsecondary” (25-1042) who teach biochemistry.

Illustrative Examples: Food Technology Teacher; Pharmacognosy Teacher

25-1053 Environmental Science Teachers, Postsecondary

Teach courses in environmental science. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

25-1054 Physics Teachers, Postsecondary

Teach courses pertaining to the laws of matter and energy. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Aerodynamics Teacher; Ballistics Teacher; Thermodynamics Teacher

25-1061 Anthropology and Archeology Teachers, Postsecondary

Teach courses in anthropology or archeology. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Example: Paleology Teacher

25-1062 Area, Ethnic, and Cultural Studies Teachers, Postsecondary

Teach courses pertaining to the culture and development of an area (e.g., Latin America), an ethnic group, or any other group (e.g., women’s studies, urban affairs). Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Example: Ethnology Teacher

25-1063 Economics Teachers, Postsecondary

Teach courses in economics. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Agricultural Economics Teacher; Industrial Economics Teacher

25-1064 Geography Teachers, Postsecondary

Teach courses in geography. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Example: Cartography Teacher

25-1065 Political Science Teachers, Postsecondary

Teach courses in political science, international affairs, and international relations. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Government Teacher; International Relations Teacher; Public Policy Teacher

25-1066 Psychology Teachers, Postsecondary

Teach courses in psychology, such as child, clinical, and developmental psychology, and psychological counseling. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Child Development Teacher; Human Relations Teacher; Applied Psychology Teacher

25-1067 Sociology Teachers, Postsecondary

Teach courses in sociology. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

25-1069 Social Sciences Teachers, Postsecondary, All Other

All postsecondary social sciences teachers not listed separately.

Illustrative Examples: Urban Planning Teacher; Labor Relations Teacher; Survey Research Teacher

25-1071 Health Specialties Teachers, Postsecondary

Teach courses in health specialties, such as veterinary medicine, dentistry, pharmacy, therapy, laboratory technology, and public health. Exclude “Nursing Instructors and Teachers, Postsecondary” (25-1072) and “Biological Science Teachers, Postsecondary” (25-1042) who teach medical science.

Illustrative Examples: Pharmacology Teacher; Dentistry Teacher; Nutrition Teacher

25-1072 Nursing Instructors and Teachers, Postsecondary

Demonstrate and teach patient care in classroom and clinical units to nursing students. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Registered Nursing Instructor; Practical Nursing Instructor; Nurses Aides Instructors

25-1081 Education Teachers, Postsecondary

Teach courses pertaining to education, such as counseling, curriculum, guidance, instruction, teacher education, and teaching English as a second language. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

25-1082 Library Science Teachers, Postsecondary

Teach courses in library science. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Example: Teacher of Medical Record Librarians

25-1111 Criminal Justice and Law Enforcement Teachers, Postsecondary

Teach courses in criminal justice, corrections, and law enforcement administration. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Criminology Teacher; Penology Teacher

25-1112 Law Teachers, Postsecondary

Teach courses in law. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

25-1113 Social Work Teachers, Postsecondary

Teach courses in social work. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

25-1121 Art, Drama, and Music Teachers, Postsecondary

Teach courses in drama, music, and the arts Inc. fine and applied art, such as painting and sculpture, or design and crafts. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Photography Teacher; Piano Teacher; Music Director

25-1122 Communications Teachers, Postsecondary

Teach courses in communications, such as organizational communications, public relations, radio/television broadcasting, and journalism. Include

both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Journalism Teacher; Public Speaking Teacher

25-1123 English Language and Literature Teachers, Postsecondary

Teach courses in English language and literature, Inc. linguistics and comparative literature. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Classics Teacher; Etymology Teacher; Creative Writing Teacher

25-1124 Foreign Language and Literature Teachers, Postsecondary

Teach courses in foreign (i.e., other than English) languages and literature. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Arabic Teacher; Russian Teacher; Spanish Teacher

25-1125 History Teachers, Postsecondary

Teach courses in human history and historiography. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

25-1126 Philosophy and Religion Teachers, Postsecondary

Teach courses in philosophy, religion, and theology. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Divinity Teacher; Metaphysics Teacher; Theology Teacher

25-1191 Graduate Teaching Assistants

Assist department chairperson, faculty members, or other professional staff members in college or university by performing teaching or teaching-related duties, such as teaching lower level courses, developing teaching materials, preparing and giving examinations, and grading examinations or papers. Graduate assistants must be enrolled in a graduate school program. Graduate assistants who primarily perform non-teaching duties, such as laboratory research, should be reported in the occupational category related to the work performed.

25-1192 Home Economics Teachers, Postsecondary

Teach courses in child care, family relations, finance, nutrition, and related subjects as pertaining to home management. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Food and Nutrition Teacher; Sewing Teacher

25-1193 Recreation and Fitness Studies Teachers, Postsecondary

Teach courses pertaining to recreation, leisure, and fitness studies, Inc. exercise physiology and facilities management. Include both teachers primarily engaged in teaching and those who do a combination of both teaching and research.

Illustrative Examples: Swimming Teacher; Leisure Studies Instructor

25-1194 Vocational Education Teachers, Postsecondary

Teach or instruct vocational or occupational subjects at the postsecondary level (but at less than the baccalaureate) to students who have graduated or left high school. Include correspondence school instructors; industrial, commercial and government training instructors; and adult education teachers and instructors who prepare persons to operate industrial machinery and equipment and transportation and communications equipment. Teaching may take place in public or private schools whose primary business is education or in a school associated with an organization whose primary business is other than education.

Illustrative Examples: Real Estate Instructor; Auto Mechanics Teacher; Barbering Teacher

25-1199 Postsecondary Teachers, All Other

All postsecondary teachers not listed separately.

25-2011 Preschool Teachers, Ex. Special Education

Instruct children (normally up to 5 years of age) in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold State certification. Exclude "Child Care Workers" (39-9011) and "Special Education Teachers" (25-2041 through 25-2043).

Illustrative Examples: Head Start Teacher; Childhood Development Teacher; Nursery School Teacher

25-2012 Kindergarten Teachers, Ex. Special Education

Teach elemental natural and social science, personal hygiene, music, art, and literature to children from 4 to 6 years old. Promote physical, mental, and social development. May be required to hold State certification. Exclude "Special Education Teachers" (25-2041 through 25-2043).

25-2021 Elementary School Teachers, Ex. Special Education

Teach pupils in public or private schools at the elementary level basic academic, social, and other formative skills. Exclude "Special Education Teachers" (25-2041 through 25-2043).

25-2022 Middle School Teachers, Ex. Special and Vocational Education

Teach students in public or private schools in one or more subjects at the middle, intermediate, or junior high level, which falls between elementary and senior high school as defined by applicable State laws and regulations. Exclude "Middle School Vocational Education Teachers" (25-2023) and "Special Education Teachers" (25-2041 through 25-2043).

Illustrative Example: Junior High School Teacher

25-2023 Vocational Education Teachers, Middle School

Teach or instruct vocational or occupational subjects at the middle school level. Exclude "Special Education Teachers" (25-2041 through 25-2043).

25-2031 Secondary School Teachers, Ex. Special and Vocational Education

Instruct students in secondary public or private schools in one or more subjects at the secondary level, such as English, mathematics, or social studies. May be designated according to subject matter specialty, such as typing instructors, commercial teachers, or English teachers. Exclude "Vocational Education Secondary School Teachers" (25-2032) and "Special Education Teachers" (25-2041 through 25-2043).

Illustrative Example: High School Teacher

25-2032 Vocational Education Teachers, Secondary School

Teach or instruct vocational or occupational subjects at the secondary school level.

25-2041 Special Education Teachers, Preschool, Kindergarten, and Elementary School

Teach elementary and preschool school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.

25-2042 Special Education Teachers, Middle School

Teach middle school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.

25-2043 Special Education Teachers, Secondary School

Teach secondary school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.

25-3011 Adult Literacy, Remedial Education, and GED Teachers and Instructors

Teach or instruct out-of-school youths and adults in remedial education classes, preparatory classes for the General Educational Development test, literacy, or English as a Second Language. Teaching may or may not take place in a traditional educational institution.

Illustrative Example: Adult Education Teacher

25-3021 Self-Enrichment Education Teachers

Teach or instruct courses other than those that normally lead to an occupational objective or degree. Courses may include self-improvement, non-vocational, and non-academic subjects. Teaching may or may not take place in a traditional educational institution.

Illustrative Examples: Art Teacher; Flying Teacher; Citizenship Teacher

25-3099 Teachers and Instructors, All Other

All teachers and instructors not listed separately.

Illustrative Examples: Consumer Education Specialist; Lecturer; Private Tutor

25-3999 Teachers, Primary, Secondary, and Adult, All Other (OES code only)

25-4010 Archivists, Curators, and Museum Technicians

This broad occupation includes the following three detailed occupations:

25-4011 Archivists (SOC code only)

Appraise, edit, and direct safekeeping of permanent records and historically valuable documents. Participate in research activities based on archival materials.

25-4012 Curators (SOC code only)

Administer affairs of museum and conduct research programs. Direct instructional, research, and public service activities of institution.

25-4013 Museum Technicians and Conservators (SOC code only)

Prepare specimens, such as fossils, skeletal parts, lace, and textiles, for museum collection and exhibits. May restore documents or install, arrange, and exhibit materials.

Illustrative Examples: Docent Coordinator; Art Gallery Director; Museum Director; Museum Registrar

25-4021 Librarians

Administer libraries and perform related library services. Work in a variety of settings, Inc. public libraries, schools, colleges and universities, museums, corporations, government agencies, law firms, non-profit organizations, and healthcare providers. Tasks may include selecting, acquiring, cataloguing, classifying, circulating, and maintaining library materials; and furnishing reference, bibliographical, and readers' advisory services. May perform in-depth, strategic research, and synthesize, analyze, edit, and filter information. May set up or work with databases and information systems to catalogue and access information.

Illustrative Examples: School Library Media Specialist; Circulation Manager

25-4031 Library Technicians

Assist librarians by helping readers in the use of library catalogs, databases, and indexes to locate books and other materials; and by answering questions that require only brief consultation of standard reference. Compile records; sort and shelf books; remove or repair damaged books; register patrons; check materials in and out of the circulation process. Replace materials in shelving area (stacks) or files. Include bookmobile drivers who operate bookmobiles or light trucks that pull trailers to specific locations on a

predetermined schedule and assist with providing services in mobile libraries.

Illustrative Examples: Assistant Librarian; Bookmobile Driver

25-9011 Audio-Visual Collections Specialists

Prepare, plan, and operate audio-visual teaching aids for use in education. May record, catalogue, and file audio-visual materials.

25-9021 Farm and Home Management Advisors

Advise, instruct, and assist individuals and families engaged in agriculture, agricultural-related processes, or home economics activities. Demonstrate procedures and apply research findings to solve problems; instruct and train in product development, sales, and the utilization of machinery and equipment to promote general welfare. Include county agricultural agents, feed and farm management advisers, home economists, and extension service advisers.

Illustrative Examples: Agricultural Extension Agent; Feed Adviser; Home Economic Extension Worker

25-9031 Instructional Coordinators

Develop instructional material, coordinate educational content, and incorporate current technology in specialized fields that provide guidelines to educators and instructors for developing curricula and conducting courses. Include educational consultants and specialists, and instructional material directors.

Illustrative Examples: Curriculum Specialist; Director of Instructional Materials; Educational Consultant

25-9041 Teacher Assistants

Perform duties that are instructional in nature or deliver direct services to students or parents. Serve in a position for which a teacher or another professional has ultimate responsibility for the design and implementation of educational programs and services.

Illustrative Examples: Examination Proctor; Paper Grader; Paraprofessional Teacher Aides

25-9099 Education, Training, and Library Workers, All Other

All education, training, and library workers not listed separately.

25-9199 Library, Museum, Training, and Other Education Workers, All Other (OES code only)

Arts, Design, Entertainment, Sports, and Media

27-1011 Art Directors

Formulate design concepts and presentation approaches, and direct workers engaged in art work, layout design, and copy writing for visual communications media, such as magazines, books, newspapers, and packaging.

27-1012 Craft Artists

Create or reproduce hand-made objects for sale and exhibition using a variety of techniques, such as welding, weaving, pottery, and needlecraft.

Illustrative Examples: Architectural Modeler; Furniture Reproducer; Ivory Carver

27-1013 Fine Artists, Inc. Painters, Sculptors, and Illustrators

Create original artwork using any of a wide variety of mediums and techniques, such as painting and sculpture.

Illustrative Examples: Art Restorer; Cartoonist; Statue Maker

27-1014 Multi-Media Artists and Animators

Create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials.

Illustrative Examples: Computer Artist; Computer Graphics Illustrator; Special Effects Specialist

27-1019 Artists and Related Workers, All Other

All artists and related workers not listed separately.

Illustrative Examples: Art Appraiser; Calligrapher; Inker and Opaquer

27-1021 Commercial and Industrial Designers

Develop and design manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.

Illustrative Examples: Body Stylist; Color Consultant; Jewelry Designer

27-1022 Fashion Designers

Design clothing and accessories. Create original garments or design garments that follow well established fashion trends. May develop the line of color and kinds of materials.

Illustrative Examples: Costume Designer; Custom Furrier; Stylist

27-1023 Floral Designers

Design, cut, and arrange live, dried, or artificial flowers and foliage.

Illustrative Examples: Corsage Maker; Florist; Flower Arranger

27-1024 Graphic Designers

Design or create graphics to meet a client's specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.

Illustrative Examples: Catalogue Illustrator; Graphic Artist; Layout Artist

27-1025 Interior Designers

Plan, design, and furnish interiors of residential, commercial, or industrial buildings. Formulate design which is practical, aesthetic, and conducive to intended purposes, such as raising productivity, selling merchandise, or improving life style. May specialize in a particular field, style, or phase of interior design. Exclude "Merchandise Displayers and Window Trimmers" (27-1026).

Illustrative Examples: Decorator; Furniture Arranger; Home Lighting Adviser

27-1026 Merchandise Displayers and Window Trimmers

Plan and erect commercial displays, such as those in windows and interiors of retail stores and at trade exhibitions.

Illustrative Examples: Mannequin Decorator; Display Artist; Model Dresser

27-1027 Set and Exhibit Designers

Design special exhibits and movie, television, and theater sets. May study scripts, confer with directors, and conduct research to determine appropriate architectural styles.

Illustrative Examples: Set Decorator; Stage Scenery Designer

27-1029 Designers, All Other

All designers not listed separately.

Illustrative Examples: Copyist; Frame Stylist

27-1099 Art and Design Workers, All Other (OES code only)**27-2011 Actors**

Play parts in stage, television, radio, video, or motion picture productions for entertainment, information, or instruction. Interpret serious or comic role by speech, gesture, and body movement to entertain or inform audience. May dance and sing.

Illustrative Examples: Elocutionist; Extra; Dramatic Reader

27-2012 Producers and Directors

Produce or direct stage, television, radio, video, or motion picture productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of guests, set design, sound, special effects, and choreography.

Illustrative Examples: Independent Film Maker; Stage Manager; Program Arranger

27-2021 Athletes and Sports Competitors

Compete in athletic events.

Illustrative Examples: Ball Player; Jockey; Racing Car Driver

27-2022 Coaches and Scouts

Instruct or coach groups or individuals in the fundamentals of sports. Demonstrate techniques and methods of participation. May evaluate athletes' strengths and weaknesses as possible recruits or to improve the athletes' technique to prepare them for competition. Those required to hold teaching degrees should be reported in the appropriate teaching category. Exclude "Athletic Trainers" (29-9091).

Illustrative Examples: Boxing Trainer; Horse Trainer; Baseball Club Manager

27-2023 Umpires, Referees, and Other Sports Officials

Officiate at competitive athletic or sporting events. Detect infractions of rules and decide penalties according to established regulations. Include all sporting officials, referees, and competition judges.

Illustrative Examples: Handicapper; Paddock Judge; Athletic Events Scorer

27-2031 Dancers

Perform dances. May also sing or act.

27-2032 Choreographers

Create and teach dance. May direct and stage presentations.

Illustrative Example: Dance Director

27-2041 Music Directors and Composers

Conduct, direct, plan, and lead instrumental or vocal performances by musical groups, such as orchestras, choirs, and glee clubs. Include arrangers, composers, choral directors, and orchestrators.

Illustrative Examples: Choirmaster; Orchestra Conductor

27-2042 Musicians and Singers

Play one or more musical instruments or entertain by singing songs in recital, in accompaniment, or as a member of an orchestra, band, or other musical group. Musical performers may entertain on-stage, radio, TV, film, video, or record in studios. Exclude "Dancers" (27-2031).

Illustrative Examples: Cantor; Church Organist; Instrumentalist

27-2099 Entertainers and Performers, Sports and Related Workers, All Other

All entertainers and performers, sports and related workers not listed separately.

Illustrative Examples: Circus Performer; Comedian; Magician

27-3010 Announcers

This broad occupation includes the following two detailed occupations (see below)

Illustrative Examples: Broadcaster; Disk Jockey; Ringmaster; Train Caller

27-3011 Radio and Television Announcers (SOC code only)

Talk on radio or television. May interview guests, act as master of ceremonies, read news flashes, identify station by giving call letters, or announce song title and artist.

27-3012 Public Address System and Other Announcers (SOC code only)

Make announcements over loud speaker at sporting or other public events. May act as master of

ceremonies or disc jockey at weddings, parties, clubs, or other gathering places.

27-3020 News Analysts, Reporters and Correspondents

This broad occupation includes the following two detailed occupations (see below).

Illustrative Examples: News Anchor; Newscaster; Commentator; Newscaster; Columnist; Critic; Foreign Correspondent

27-3021 (SOC code only) Broadcast News Analysts

Analyze, interpret, and broadcast news received from various sources.

27-3022 (SOC code only)

Reporters and Correspondents: Collect and analyze facts about newsworthy events by interview, investigation, or observation. Report and write stories for newspaper, news magazine, radio, or television.

27-3031 Public Relations Specialists

Engage in promoting or creating good will for individuals, groups, or organizations by writing or selecting favorable publicity material and releasing it through various communications media. May prepare and arrange displays, and make speeches.

Illustrative Examples: Lobbyist; Press Secretary; Publicist

27-3041 Editors

Perform variety of editorial duties, such as laying out, indexing, and revising content of written materials, in preparation for final publication. Include technical editors.

Illustrative Examples: Copy Editor; Censor; Reviewer

27-3042 Technical Writers

Write technical materials, such as equipment manuals, appendices, or operating and maintenance instructions. May assist in layout work.

Illustrative Examples: Documentation Writer; Assembly Instructions Writer; Specifications Writer

27-3043 Writers and Authors

Originate and prepare written material, such as scripts, stories, advertisements, and other material. Exclude "Public Relations Specialists" (27-3031) and "Technical Writers" (27-3042).

Illustrative Examples: Crossword Puzzle Maker; Copy Writer; Playwright

27-3091 Interpreters and Translators

Translate or interpret written, oral, or sign language text into another language for others.

Illustrative Examples: Braille Translator; Deaf Interpreter; Language Translator

27-3099 Media and Communication Workers, All Other

All media and communication workers not listed separately.

Illustrative Examples: Graphologist; Stage Technician

27-4011 Audio and Video Equipment Technicians

Set up or set up and operate audio and video equipment Inc. microphones, sound speakers, video screens, projectors, video monitors, recording equipment, connecting wires and cables, sound and mixing boards, and related electronic equipment for concerts, sports events, meetings and conventions, presentations, and news conferences. May also set up and operate associated spotlights and other custom lighting systems. Exclude "Sound Engineering Technicians" (27-4014).

Illustrative Examples: Video Control Operator; Audio Visual Production Specialist

27-4012 Broadcast Technicians

Set up, operate, and maintain the electronic equipment used to transmit radio and television programs. Control audio equipment to regulate volume level and quality of sound during radio and television broadcasts. Operate radio transmitter to broadcast radio and television programs.

Illustrative Examples: Control Room Technician; Audio Engineer

27-4013 Radio Operators

Receive and transmit communications using radiotelegraph or radiotelephone equipment in accordance with government regulations. May repair equipment.

Illustrative Example: Radio Officer

27-4014 Sound Engineering Technicians

Operate machines and equipment to record, synchronize, mix, or reproduce music, voices, or sound effects in sporting arenas, theater productions, recording studios, or movie and video productions.

Illustrative Examples: Film Recordist; Sound Editor; Sound Effects Person

27-4021 Photographers

Photograph persons, subjects, merchandise, or other commercial products. May develop negatives and produce finished prints. Include scientific photographers, aerial photographers, and photojournalists.

Illustrative Examples: Camera Operator; Photojournalist

27-4031 Camera Operators, Television, Video, and Motion Picture

Operate television, video, or motion picture camera to photograph images or scenes for various purposes, such as TV broadcasts, advertising, video production, or motion pictures.

Illustrative Example: Cinematographer

27-4032 Film and Video Editors

Edit motion picture soundtracks, film, and video.

Illustrative Examples: Cue Selector; Video Tape Duplicator

27-4099 Media and Communication Equipment Workers, All Other

All media and communication equipment workers not listed separately.

Illustrative Examples: Radar Operator; Light Technician

Healthcare Practitioners and Technical**29-1011 Chiropractors**

Adjust spinal column and other articulations of the body to correct abnormalities of the human body believed to be caused by interference with the nervous system. Examine patient to determine nature and extent of disorder. Manipulate spine or other involved area. May utilize supplementary measures, such as exercise, rest, water, light, heat, and nutritional therapy.

29-1020 Dentists

This broad occupation includes the following five detailed occupations (see below).

29-1021 Dentists, General (SOC code only)

Diagnose and treat diseases, injuries, and malformations of teeth and gums and related oral structures. May treat diseases of nerve, pulp, and other dental tissues affecting vitality of teeth. Exclude "Prosthodontists" (29-1024), "Orthodontists" (29-1023),

“Oral and Maxillofacial Surgeons” (29-1022) and “Dentists, all other specialists” (29-1029).

29-1022 (SOC code only) Oral and Maxillofacial Surgeons

Perform surgery on mouth, jaws, and related head and neck structure to execute difficult and multiple extractions of teeth, to remove tumors and other abnormal growths, to correct abnormal jaw relations by mandibular or maxillary revision, to prepare mouth for insertion of dental prosthesis, or to treat fractured jaws.

Illustrative Example: Dental Surgeon

29-1023 Orthodontists (SOC code only)

Examine, diagnose, and treat dental malocclusions and oral cavity anomalies. Design and fabricate appliances to realign teeth and jaws to produce and maintain normal function and to improve appearance.

29-1024 Prosthodontists (SOC code only)

Construct oral prostheses to replace missing teeth and other oral structures to correct natural and acquired deformation of mouth and jaws, to restore and maintain oral function, such as chewing and speaking, and to improve appearance.

29-1029 Dentists, All Other Specialists (SOC code only)

All dentists not listed separately.

Illustrative Examples: Endodontist; Periodontist; Oral Pathologist

29-1031 Dietitians and Nutritionists

Plan and conduct food service or nutritional programs to assist in the promotion of health and control of disease. May supervise activities of a department providing quantity food services, counsel individuals, or conduct nutritional research.

Illustrative Examples: Public Health Dietitian; Nutrition Director; Research Dietitian

29-1032 Dietitians and Nutritionists, Non R&D (SIC 822 only)

29-1033 Dietitians and Nutritionists, R&D (SIC 822 only)

29-1041 Optometrists

Diagnose, manage, and treat conditions and diseases of the human eye and visual system. Examine eyes and visual system, diagnose problems or impairments, prescribe corrective lenses, and provide treatment. May

prescribe therapeutic drugs to treat specific eye conditions.

Illustrative Example: Doctor of Optometry

29-1051 Pharmacists

Dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. May advise physicians and other health practitioners on the selection, dosage, interactions, and side effects of medications.

Illustrative Examples: Apothecary; Druggist; Industrial Pharmacist

29-1061 Anesthesiologists

Administer anesthetics during surgery or other medical procedures.

29-1062 Family and General Practitioners

Diagnose, treat, and help prevent diseases and injuries that commonly occur in the general population.

29-1063 Internists, General

Diagnose and provide non-surgical treatment of diseases and injuries of internal organ systems. Provide care mainly for adults who have a wide range of problems associated with the internal organs. Include subspecialists, such as cardiologists and gastroenterologists, with “All Other Physicians” (29-1069).

29-1064 Obstetricians and Gynecologists

Diagnose, treat, and help prevent diseases of women, especially those affecting the reproductive system and the process of childbirth.

29-1065 Pediatricians, General

Diagnose, treat, and help prevent children's diseases and injuries.

29-1066 Psychiatrists

Diagnose, treat, and help prevent disorders of the mind.

Illustrative Examples: Psychoanalyst; Neuropsychiatrist

29-1067 Surgeons

Treat diseases, injuries, and deformities by invasive methods, such as manual manipulation or by using instruments and appliances.

Illustrative Examples: Orthopedic Surgeon; Cardiovascular Surgeon; Plastic Surgeon

29-1069 Physicians and Surgeons, All Other

All physicians and surgeons not listed separately.

Illustrative Examples: Cardiologist; Dermatologist; Ophthalmologist

29-1071 Physician Assistants

Provide healthcare services typically performed by a physician, under the supervision of a physician. Conduct complete physicals, provide treatment, and counsel patients. May, in some cases, prescribe medication. Must graduate from an accredited educational program for physician assistants. Exclude "Emergency Medical Technicians and Paramedics" (29-2041), "Medical Assistants" (31-9092), and "Registered Nurses" (29-1111).

Illustrative Example: Anesthesiologist Assistant

29-1081 Podiatrists

Diagnose and treat diseases and deformities of the human foot.

Illustrative Examples: Podiatric Surgeon; Foot Orthopedist; Pododermatologist

29-1111 Registered Nurses

Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Include advance practice nurses such as: nurse practitioners, clinical nurse specialists, certified nurse midwives, and certified registered nurse anesthetists. Advanced practice nursing is practiced by RNs who have specialized formal, post-basic education and who function in highly autonomous and specialized roles.

Illustrative Examples: Nursing Supervisor; Nurse Midwife; Nurse Practitioner

29-1114 Registered Nurses, Non R&D (SIC 822 only)**29-1115 Registered Nurses, R&D (SIC 822 only)****29-1121 Audiologists**

Assess and treat persons with hearing and related disorders. May fit hearing aids and provide auditory training. May perform research related to hearing problems.

Illustrative Example: Hearing Therapist

29-1122 Occupational Therapists

Assess, plan, organize, and participate in rehabilitative programs that help restore vocational, homemaking, and daily living skills, as well as general independence, to disabled persons.

29-1123 Physical Therapists

Assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and decrease or prevent deformity of patients suffering from disease or injury.

Illustrative Examples: Physiotherapist; Pulmonary Physical Therapist

29-1124 Radiation Therapists

Provide radiation therapy to patients as prescribed by a radiologist according to established practices and standards. Duties may include reviewing prescription and diagnosis; acting as liaison with physician and supportive care personnel; preparing equipment, such as immobilization, treatment, and protection devices; and maintaining records, reports, and files. May assist in dosimetry procedures and tumor localization.

Illustrative Examples: Dosimetrist; Radiation Therapy Technologist

29-1125 Recreational Therapists

Plan, direct, or coordinate medically-approved recreation programs for patients in hospitals, nursing homes, or other institutions. Activities include sports, trips, dramatics, social activities, and arts and crafts. May assess a patient condition and recommend appropriate recreational activity.

Illustrative Example: Therapeutic Recreation Specialist

29-1126 Respiratory Therapists

Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, Inc. the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.

Illustrative Examples: Inhalation Therapist; Respiratory Care Practitioner; Oxygen Therapist

29-1127 Speech-Language Pathologists

Assess and treat persons with speech, language, voice, and fluency disorders. May select alternative communication systems and teach their use. May perform research related to speech and language problems.

Illustrative Examples: Oral Therapist; Speech Clinician; Speech Therapist

29-1129 Therapists, All Other

All therapists not listed separately.

Illustrative Examples: Corrective and Manual Arts Therapist; Hydrotherapist; Music Therapist

29-1131 Veterinarians

Diagnose and treat diseases and dysfunctions of animals. May engage in a particular function, such as research and development, consultation, administration, technical writing, sale or production of commercial products, or rendering of technical services to commercial firms or other organizations. Include veterinarians who inspect livestock.

Illustrative Examples: Animal Pathologist; Animal Surgeon; Veterinary Bacteriologist

29-1151 Audiologists, Non R&D (SIC 822 only)**29-1152 Audiologists, R&D (SIC 822 only)****29-1153 Occupational Therapists, Non R&D (SIC 822 only)****29-1154 Occupational Therapists, R&D (SIC 822 only)****29-1155 Speech-Language Pathologists, Non R&D (SIC 822 only)****29-1156 Speech-Language Pathologists, R&D (SIC 822 only)****29-1199 Health Diagnosing and Treating Practitioners, All Other**

All health diagnosing and treating practitioners not listed separately.

Illustrative Examples: Physicians, not specified; Cardiologist; Ophthalmologist; Dermatologist; Therapists, not specified; Corrective Therapist; Homeopathic Doctor; Acupuncturist; Hypnotherapist

29-2011 Medical and Clinical Laboratory Technologists

Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.

Illustrative Examples: Blood Bank Technologist; Cytotechnologist; Immunohematologist

29-2012 Medical and Clinical Laboratory Technicians

Perform routine medical laboratory tests for the

diagnosis, treatment, and prevention of disease. May work under the supervision of a medical technologist.

Illustrative Examples: Blood Bank Technician; Cytotechnician; Serology Technician

29-2021 Dental Hygienists

Clean teeth and examine oral areas, head, and neck for signs of oral disease. May educate patients on oral hygiene, take and develop X-rays, or apply fluoride or sealants.

Illustrative Example: Oral Hygienist

29-2031 Cardiovascular Technologists and Technicians

Conduct tests on pulmonary or cardiovascular systems of patients for diagnostic purposes. May conduct or assist in electrocardiograms, cardiac catheterizations, pulmonary-functions, lung capacity, and similar tests. Include vascular technologists.

Illustrative Examples: Cardiographer; Cardiopulmonary Technologist; E.K.G. Technician

29-2032 Diagnostic Medical Sonographers

Produce ultrasonic recordings of internal organs for use by physicians.

Illustrative Examples: Ultrasonic Tester; Ultrasound Technologist

29-2033 Nuclear Medicine Technologists

Prepare, administer, and measure radioactive isotopes in therapeutic, diagnostic, and tracer studies utilizing a variety of radioisotope equipment. Prepare stock solutions of radioactive materials and calculate doses to be administered by radiologists. Subject patients to radiation. Execute blood volume, red cell survival, and fat absorption studies following standard laboratory techniques.

Illustrative Example: Radioisotope Technician

29-2034 Radiologic Technologists and Technicians

Take X-rays and CAT scans or administer non-radioactive materials into patient's blood stream for diagnostic purposes. Include technologists who specialize in other modalities, such as computed tomography and magnetic resonance. Include workers whose primary duties are to demonstrate portions of the human body on X-ray film or fluoroscopic screen.

Illustrative Examples: CAT Scan Operator; Skiagrapher; X-Ray Technician

29-2041 Emergency Medical Technicians and Paramedics

Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.

Illustrative Example: E.M.T.

29-2051 Dietetic Technicians

Assist dietitians in the provision of food service and nutritional programs. Under the supervision of dietitians, may plan and produce meals based on established guidelines, teach principles of food and nutrition, or counsel individuals.

29-2052 Pharmacy Technicians

Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications.

29-2053 Psychiatric Technicians

Care for mentally impaired or emotionally disturbed individuals, following physician instructions and hospital procedures. Monitor patients' physical and emotional well-being and report to medical staff. May participate in rehabilitation and treatment programs, help with personal hygiene, and administer oral medications and hypodermic injections.

Illustrative Example: Mental Health Technician

29-2054 Respiratory Therapy Technicians

Provide specific, well defined respiratory care procedures under the direction of respiratory therapists and physicians.

Illustrative Example: Oxygen Therapy Technician

29-2055 Surgical Technologists

Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel. May help set up operating room, prepare and transport patients for surgery, adjust lights and equipment, pass instruments and other supplies to surgeons and surgeon's assistants, hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments.

Illustrative Examples: Operating Room Technician; Scrub Technician; Surgical Orderly

29-2056 Veterinary Technologists and Technicians

Perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in

animals. Prepare vaccines and serums for prevention of diseases. Prepare tissue samples, take blood samples, and execute laboratory tests, such as urinalysis and blood counts. Clean and sterilize instruments and materials and maintain equipment and machines.

Illustrative Examples: Animal Technician; Veterinary X-ray Operator

29-2061 Licensed Practical and Licensed Vocational Nurses

Care for ill, injured, convalescent, or disabled persons in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.

Illustrative Example: Licensed Attendant

29-2071 Medical Records and Health Information Technicians

Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards.

Illustrative Examples: Disability Rater; Medical Records Specialist; Medical Library Historian

29-2081 Opticians, Dispensing

Design, measure, fit, and adapt lenses and frames for client according to written optical prescription or specification. Assist client with selecting frames. Measure customer for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. Prepare work order for optical laboratory containing instructions for grinding and mounting lenses in frames. Verify exactness of finished lens spectacles. Adjust frame and lens position to fit client. May shape or reshape frames. Include contact lens opticians.

Illustrative Examples: Contact Lens Fitter; Eyeglass Fitter

29-2091 Orthotists and Prosthetists

Assist patients with disabling conditions of limbs and spine or with partial or total absence of limb by fitting and preparing orthopedic braces or prostheses.

Illustrative Examples: Artificial Limb Fitter; Orthopedic Mechanic

29-2099 Health Technologists and Technicians, All Other

All health technologists and technicians not listed separately.

Illustrative Examples: Dialysis Technician; Encephalographer; Hearing Aid Specialist

29-9010 Occupational Health and Safety Specialists and Technicians

This broad occupation includes the following two detailed occupations (see below).

Illustrative Examples: Health Inspector; Industrial Hygienist Health Sanitarian; Mine Examiner

29-9011 Occupational Health and Safety Specialists

Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector. Include environmental protection officers.

29-9012 Occupational Health and Safety Technicians (SOC code only)

Collect data on work environments for analysis by occupational health and safety specialists. Implement and conduct evaluation of programs designed to limit chemical, physical, biological, and ergonomic risks to workers.

29-9091 Athletic Trainers

Evaluate, advise, and treat athletes to assist recovery from injury, avoid injury, or maintain peak physical fitness.

29-9099 Healthcare Practitioners and Technical Workers, All Other

All healthcare practitioners and technical workers not listed separately.

29-9199 Health Professionals and Technicians, All Other (OES code only)

Healthcare Support

31-1011 Home Health Aides

Provide routine, personal healthcare, such as bathing,

dressing, or grooming, to elderly, convalescent, or disabled persons in the home of patients or in a residential care facility.

Illustrative Example: Home Attendant

31-1012 Nursing Aides, Orderlies, and Attendants

Provide basic patient care under direction of nursing staff. Perform duties, such as feed, bathe, dress, groom, or move patients, or change linens. Exclude "Home Health Aides" (31-1011) and "Psychiatric Aides" (31-1013).

Illustrative Examples: Certified Nursing Assistant; Hospital Aide; Infirmary Attendant

31-1013 Psychiatric Aides

Assist mentally impaired or emotionally disturbed patients, working under direction of nursing and medical staff.

Illustrative Examples: Charge Attendant; Psychiatric Orderly

31-2011 Occupational Therapist Assistants

Assist occupational therapists in providing occupational therapy treatments and procedures. May, in accordance with State laws, assist in development of treatment plans, carry out routine functions, direct activity programs, and document the progress of treatments. Generally requires formal training.

Illustrative Example: Occupational Therapy Technician

31-2012 Occupational Therapist Aides

Under close supervision of an occupational therapist or occupational therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing patient and treatment room.

31-2021 Physical Therapist Assistants

Assist physical therapists in providing physical therapy treatments and procedures. May, in accordance with State laws, assist in the development of treatment plans, carry out routine functions, document the progress of treatment, and modify specific treatments in accordance with patient status and within the scope of treatment plans established by a physical therapist. Generally requires formal training.

Illustrative Example: Corrective Therapy Assistant

31-2022 Physical Therapist Aides

Under close supervision of a physical therapist or physical therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing the patient and the treatment area.

Illustrative Example: Physiotherapy Aide

31-9011 Massage Therapists

Massage customers for hygienic or remedial purposes.

Illustrative Examples: Masseuse; Masseur; Rubber

31-9091 Dental Assistants

Assist dentist, set up patient and equipment, and keep records.

31-9092 Medical Assistants

Perform administrative and certain clinical duties under the direction of physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician. Exclude "Physician Assistants" (29-1071).

Illustrative Examples: Morgue Attendant; Ophthalmic Aide; Physicians Aide

31-9093 Medical Equipment Preparers

Prepare, sterilize, install, or clean laboratory or healthcare equipment. May perform routine laboratory tasks and operate or inspect equipment.

Illustrative Examples: Bandage Maker; Hot Packer; Sterilizer

31-9094 Medical Transcriptionists

Use transcribing machines with headset and foot pedal to listen to recordings by physicians and other healthcare professionals dictating a variety of medical reports, such as emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate medical jargon and abbreviations into their expanded forms. Edit as necessary and return reports in either printed or electronic form to the dictator for review and signature, or correction.

Illustrative Example: Medical Stenographer

31-9095 Pharmacy Aides

Record drugs delivered to the pharmacy, store incoming merchandise, and inform the supervisor of stock needs. May operate cash register and accept prescriptions for filling.

Illustrative Examples: Dispensary Attendant; Prescription Clerk

31-9096 Veterinary Assistants and Laboratory Animal Caretakers

Feed, water, and examine pets and other Non-farm animals for signs of illness, disease, or injury in laboratories and animal hospitals and clinics. Clean and disinfect cages and work areas, and sterilize laboratory and surgical equipment. May provide routine post-operative care, administer medication orally or topically, or prepare samples for laboratory examination under the supervision of veterinary or laboratory animal technologists or technicians, veterinarians, or scientists. Exclude "Non-farm Animal Caretakers" (39-2021).

31-9099 Healthcare Support Workers, All Other

All healthcare support workers not listed separately.

Illustrative Examples: Phlebotomist; Reducing Salon Attendant

Protective Service

33-1011 First-Line Supervisors/Managers of Correctional Officers

Supervise and coordinate activities of correctional officers and jailers.

Illustrative Examples: Prison Guard Supervisor; Prison Warden

33-1012 First-Line Supervisors/Managers of Police and Detectives

Supervise and coordinate activities of members of police force.

Illustrative Examples: Chief of Police; Precinct Captain

33-1021 First-Line Supervisors/Managers of Fire Fighting and Prevention Workers

Supervise and coordinate activities of workers engaged in fire fighting and fire prevention and control.

Illustrative Examples: Fire Captain; Fire Chief; Fire Marshal

33-1099 First-Line Supervisors/Managers, Protective Service Workers, All Other

All protective service supervisors not listed separately above.

Illustrative Examples: Security Director; Supervisor Animal Cruelty Investigation; Supervisor Plant Protection

33-2011 Fire Fighters

Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster management.

Illustrative Examples: Explosive Ordnance Disposal Technician; Fireboat Operator; Smoke Jumper

33-2021 Fire Inspectors and Investigators

Inspect buildings to detect fire hazards and enforce local ordinances and State laws. Investigate and gather facts to determine cause of fires and explosions.

Illustrative Example: Arson Investigator

33-2022 Forest Fire Inspectors and Prevention Specialists

Enforce fire regulations and inspect for forest fire hazards. Report forest fires and weather conditions.

Illustrative Examples: Forest Fire Control Officer; District Ranger; Fire Ranger

33-3011 Bailiffs

Maintain order in courts of law.

Illustrative Examples: Court Officer; Sergeant at Arms

33-3012 Correctional Officers and Jailers

Guard inmates in penal or rehabilitative institution in accordance with established regulations and procedures. May guard prisoners in transit between jail, courtroom, prison, or other point. Include deputy sheriffs and police who spend the majority of their time guarding prisoners in correctional institutions.

Illustrative Examples: Convict Guard; Custodial Officer; Prison Guard

33-3021 Detectives and Criminal Investigators

Conduct investigations related to suspected violations of Federal, State, or local laws to prevent or solve crimes. Exclude "Private Detectives and Investigators" (33-9021).

Illustrative Examples: Police Inspector; Deputy United States Marshal; Narcotics Agent

33-3031 Fish and Game Wardens

Patrol assigned area to prevent fish and game law violations. Investigate reports of damage to crops or property by wildlife. Compile biological data.

Illustrative Examples: State Game Protector; Wildlife Control Agent; Wildlife Officer

33-3041 Parking Enforcement Workers

Patrol assigned area, such as public parking lot or section of city to issue tickets to overtime parking violators and illegally parked vehicles.

Illustrative Examples: Parking Enforcement Officer; Parking Meter Checker

33-3051 Police and Sheriff's Patrol Officers

Maintain order, enforce laws and ordinances, and protect life and property in an assigned patrol district. Perform combination of following duties: patrol a specific area on foot or in a vehicle; direct traffic; issue traffic summonses; investigate accidents; apprehend and arrest suspects, or serve legal processes of courts.

Illustrative Examples: Border Guard; Campus Police; City Constable

33-3052 Transit and Railroad Police

Protect and police railroad and transit property, employees, or passengers.

Illustrative Examples: Railroad Detective; Track Patrol

33-9011 Animal Control Workers

Handle animals for the purpose of investigations of mistreatment, or control of abandoned, dangerous, or unattended animals.

Illustrative Examples: Animal Warden; Dog Catcher; Humane Officer

33-9021 Private Detectives and Investigators

Detect occurrences of unlawful acts or infractions of rules in private establishment, or seek, examine, and compile information for client.

Illustrative Example: House Detective

33-9031 Gaming Surveillance Officers and Gaming Investigators

Act as oversight and security agent for management and customers. Observe casino or casino hotel operation for irregular activities such as cheating or theft by either employees or patrons. May utilize one-way mirrors above the casino floor, cashier's cage, and from desk. Use of audio/video equipment is also

common to observe operation of the business. Usually required to provide verbal and written reports of all violations and suspicious behavior to supervisor.

Illustrative Examples: Casino Surveillance Officer; Casino Investigator

33-9032 Security Guards

Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules.

Illustrative Examples: Bodyguard; Bouncer; Watchguard

33-9091 Crossing Guards

Guide or control vehicular or pedestrian traffic at such places as streets, schools, railroad crossings, or construction sites.

Illustrative Examples: Flagger; Gate Operator; School Patrol

33-9092 Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers

Monitor recreational areas, such as pools, or ski slopes to provide assistance and protection to participants.

33-9099 Protective Service Workers, All Other

All protective service workers not listed separately.

Illustrative Examples: Park Ranger; Surveillance-System Monitor; Life Guard; Ski Patrol

Food Preparation and Serving Related

35-1011 Chefs and Head Cooks

Direct the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts. May participate in cooking.

Illustrative Examples: Executive Chef; Pastry Chef; Sous Chef

35-1012 First-Line Supervisors/Managers of Food Preparation and Serving Workers

Supervise workers engaged in preparing and serving food.

Illustrative Examples: Cafeteria Manager; Caterer; Bar Manager

35-2011 Cooks, Fast Food

Prepare and cook food in a fast food restaurant with a limited menu. Duties of the cooks are limited to preparation of a few basic items and normally involve operating large-volume single-purpose cooking equipment.

Illustrative Examples: Fry Cook; Pizza Maker

35-2012 Cooks, Institution and Cafeteria

Prepare and cook large quantities of food for institutions, such as schools, hospitals, or cafeterias.

Illustrative Examples: Camp Cook; Mess Cook; Galley Cook

35-2013 Cooks, Private Household

Prepare meals in private homes.

35-2014 Cooks, Restaurant

Prepare, season, and cook soups, meats, vegetables, desserts, or other foodstuffs in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.

Illustrative Examples: Broiler Cook; Specialty Foreign Food Cook; Garde-manger

35-2015 Cooks, Short Order

Prepare and cook to order a variety of foods that require only a short preparation time. May take orders from customers and serve patrons at counters or tables. Exclude "Fast Food Cooks" (35-2011).

Illustrative Examples: Barbecue Cook; Griddle Cook

35-2019 Cooks, All Other

All cooks not listed separately.

35-2021 Food Preparation Workers

Perform a variety of food preparation duties other than cooking, such as preparing cold foods and shellfish, slicing meat, and brewing coffee or tea.

Illustrative Examples: Coffee Maker; Kitchen Helper; Sandwich Maker

35-3011 Bartenders

Mix and serve drinks to patrons, directly or through waitstaff.

Illustrative Examples: Barkeeper; Taproom Attendant

35-3021 Combined Food Preparation and Serving Workers, Inc. Fast Food

Perform duties which combine both food preparation and food service.

Illustrative Examples: Caterers Aide; Deli Clerk; Mess Attendant

35-3022 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop

Serve food to diners at counter or from a steam table. Include counter attendants who also wait tables with "Waiters and Waitresses" (35-3031).

Illustrative Examples: Canteen Operator; Snack Bar Attendant Hot Dog Attendant

35-3031 Waiters and Waitresses

Take orders and serve food and beverages to patrons at tables in dining establishment. Exclude "Counter Attendants, Cafeteria, Food Concession, and Coffee Shop" (35-3022).

Illustrative Examples: Cocktail Waiter; Wine Steward; Head Waitress

35-3041 Food Servers, Non-restaurant

Serve food to patrons outside of a restaurant environment, such as in hotels, hospital rooms, or cars. Exclude "Door-to-Door Sales Workers, News and Street Vendors, and Related Workers" (41-9091) and "Counter Attendants, Cafeteria, Food Concession, and Coffee Shop" (35-3022).

Illustrative Examples: Curb Attendant; Hospital Tray-Service Worker; Room Service Clerk

35-9011 Dining Room and Cafeteria Attendants and Bartender Helpers

Facilitate food service. Clean tables, carry dirty dishes, replace soiled table linens; set tables; replenish supply of clean linens, silverware, glassware, and dishes; supply service bar with food, and serve water, butter, and coffee to patrons.

Illustrative Examples: Busser; Lunchroom Attendant; Tray Setter

35-9021 Dishwashers

Clean dishes, kitchen, food preparation equipment, or utensils.

Illustrative Examples: Kitchen Cleaner; Glass Washer; Pot Washer

35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop

Welcome patrons, seat them at tables or in lounge, and help ensure quality of facilities and service.

Illustrative Examples: Maitre D'; Dining Room Host;

35-9099 Food Preparation and Serving Related Workers, All Other

All food preparation and serving related workers not listed separately.

Illustrative Examples: Vending Machine Attendant; Cafeteria Line Runner Cooks, not specified

Building and Grounds Cleaning and Maintenance**37-1011 First-Line Supervisors/Managers of Housekeeping and Janitorial Workers**

Supervise work activities of cleaning personnel in hotels, hospitals, offices, and other establishments.

Illustrative Examples: Building Superintendent; Household Manager; Housekeeping Supervisor

37-1012 First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers

Plan, organize, direct, or coordinate activities of workers engaged in landscaping or groundskeeping activities, such as planting and maintaining ornamental trees, shrubs, flowers, and lawns, and applying fertilizers, pesticides, and other chemicals, according to contract specifications. May also coordinate activities of workers engaged in terracing hillsides, building retaining walls, constructing pathways, installing patios, and similar activities in following a landscape design plan. Work may involve reviewing contracts to ascertain service, machine, and work force requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.

Illustrative Examples: Landscape Contractor; Golf Course Superintendent; Nursery Supervisor

37-2011 Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners

Keep buildings in clean and orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. Duties may include tending furnace and boiler, performing routine maintenance activities,

notifying management of need for repairs, and cleaning snow or debris from sidewalk.

Illustrative Examples: Floor Cleaner; Building Custodian; Window Washer

37-2012 Maids and Housekeeping Cleaners

Perform any combination of light cleaning duties to maintain private households or commercial establishments, such as hotels, restaurants, and hospitals, in a clean and orderly manner. Duties include making beds, replenishing linens, cleaning rooms and halls, and vacuuming.

Illustrative Examples: Bed Maker; Chamber Maid; Housekeeper

37-2019 Building Cleaning Workers, All Other

All building cleaning workers not listed separately.

Illustrative Examples: Chimney Sweep; Air Purifier Servicer

37-2021 Pest Control Workers

Spray or release chemical solutions or toxic gases and set traps to kill pests and vermin, such as mice, termites, and roaches, that infest buildings and surrounding areas.

Illustrative Examples: Exterminator; Exterminator Helper; Fumigator

37-3011 Landscaping and Groundskeeping Workers

Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units. Exclude "Farmworkers and Laborers, Crop, Nursery, and Greenhouse" (45-2092).

Illustrative Examples: Landscape Gardener; Outdoor Sprinkler Installer; Greenskeeper

37-3012 Pesticide Handlers, Sprayers, and Applicators, Vegetation

Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation or chemical application on trees, shrubs, lawns, or botanical crops. Usually requires specific training and State or Federal certification. Exclude "Commercial Pilots" (53-2012) who operate aviation equipment to dust or spray crops.

Illustrative Examples: Fruit Sprayer; Weed Controller

37-3013 Tree Trimmers and Pruners

Cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree. Prune or treat trees or shrubs using handsaws, pruning hooks, sheers, and clippers. May use truck-mounted lifts and power pruners. May fill cavities in trees to promote healing and prevent deterioration. Exclude workers who primarily perform duties of "Pesticide Handlers, Sprayers, and Applicators, Vegetation" (37-3012) and "Landscaping and Groundskeeping Workers" (37-3011).

Illustrative Examples: Tree Doctor; Grape Vine Pruner

37-3019 Grounds Maintenance Workers, All Other

All grounds maintenance workers not listed separately.

37-9099 Building and Grounds Cleaning and Maintenance Workers, All Other (OES code only)

Personal Care and Service

39-1011 Gaming Supervisors

Supervise gaming operations and personnel in an assigned area. Circulate among tables and observe operations. Ensure that stations and games are covered for each shift. May explain and interpret operating rules of house to patrons. May plan and organize activities and create friendly atmosphere for guests in hotels/casinos. May adjust service complaints. Exclude "Slot Key Persons" (39-1012).

Illustrative Examples: Executive Casino Host; Table Games Supervisor; Pit Boss

39-1012 Slot Key Persons

Coordinate/supervise functions of slot department workers to provide service to patrons. Handle and settle complaints of players. Verify and payoff jackpots. Reset slot machines after payoffs. Make minor repairs or adjustments to slot machines. Recommend removal of slot machines for repair. Report hazards and enforces safety rules.

Illustrative Example: Slot Floor Person

39-1021 First-Line Supervisors/Managers of Personal Service Workers

Supervise and coordinate activities of personal service workers, such as supervisors of flight attendants, hairdressers, or caddies.

Illustrative Examples: Caddymaster; Barber Shop Manager; Health Club Manager

39-2011 Animal Trainers

Train animals for riding, harness, security, performance, or obedience, or assisting persons with disabilities. Accustom animals to human voice and contact; and condition animals to respond to commands. Train animals according to prescribed standards for show or competition. May train animals to carry pack loads or work as part of pack team.

Illustrative Examples: Dog Trainer; Horse Breaker; Lion Trainer

39-2021 Non-farm Animal Caretakers

Feed, water, groom, bathe, exercise, or otherwise care for pets and other Non-farm animals, such as dogs, cats, ornamental fish or birds, zoo animals, and mice. Work in settings such as kennels, animal shelters, zoos, circuses, and aquariums. May keep records of feedings, treatments, and animals received or discharged. May clean, disinfect, and repair cages, pens, or fish tanks. Exclude "Veterinary Assistants and Laboratory Animal Caretakers" (31-9096).

Illustrative Examples: Dog Groomer; Kennel Worker; Stable Attendant

39-3011 Gaming Dealers

Operate table games. Stand or sit behind table and operate games of chance by dispensing the appropriate number of cards or blocks to players, or operating other gaming equipment. Compare the house's hand against players' hands and payoff or collect players' money or chips.

Illustrative Examples: Blackjack Dealers; Roulette Dealers; Craps Dealers

39-3012 Gaming and Sports Book Writers and Runners

Assist in the operation of games such as keno and bingo. Scan winning tickets presented by patrons, calculate amount of winnings and pay patrons. May operate keno and bingo equipment. May start gaming equipment that randomly selects numbers. May announce number selected until total numbers specified for each game are selected. May pick up tickets from players, collect bets, receive, verify and record patrons' cash wagers.

Illustrative Examples: Sheet Writer; Keno Writers; Keno Runners

39-3019 Gaming Service Workers, All Other

All Gaming Service Workers not listed separately.

Illustrative Examples: Shill; Chip Mucker; Pit Clerk

39-3021 Motion Picture Projectionists

Set up and operate motion picture projection and related sound reproduction equipment.

Illustrative Examples: Chief Projectionist; Film Projector Operator

39-3031 Ushers, Lobby Attendants, and Ticket Takers

Assist patrons at entertainment events by performing duties, such as collecting admission tickets and passes from patrons, assisting in finding seats, searching for lost articles, and locating such facilities as rest rooms and telephones.

Illustrative Examples: Door Attendant; Ticket Collector

39-3091 Amusement and Recreation Attendants

Perform variety of attending duties at amusement or recreation facility. May schedule use of recreation facilities, maintain and provide equipment to participants of sporting events or recreational pursuits, or operate amusement concessions and rides.

Illustrative Examples: Arcade Attendant; Golf Course Starter; Caddy

39-3092 Costume Attendants

Select, fit, and take care of costumes for cast members, and aid entertainers.

Illustrative Examples: Wardrobe Custodian; Dresser

39-3093 Locker Room, Coatroom, and Dressing Room Attendants

Provide personal items to patrons or customers in locker rooms, dressing rooms, or coatrooms.

Illustrative Examples: Bathhouse Attendant; Jockey Valet

39-3099 Entertainment Attendants and Related Workers, All Other

All entertainment attendants and related workers not listed separately.

Illustrative Example: Department Store Greeter

39-3199 Gaming Workers, All Other (OES code only)

39-4011 Embalmers

Prepare bodies for interment in conformity with legal requirements.

39-4021 Funeral Attendants

Perform variety of tasks during funeral, such as placing casket in parlor or chapel prior to service; arranging floral offerings or lights around casket; directing or escorting mourners; closing casket; and issuing and storing funeral equipment.

Illustrative Examples: Mortician Helper; Pallbearer

39-5011 Barbers

Provide barbering services, such as cutting, trimming, shampooing, and styling hair, trimming beards, or giving shaves.

Illustrative Examples: Barber Apprentice; Hair Cutter

39-5012 Hairdressers, Hairstylists, and Cosmetologists

Provide beauty services, such as shampooing, cutting, coloring, and styling hair, and massaging and treating scalp. May also apply makeup, dress wigs, perform hair removal, and provide nail and skin care services.

Illustrative Examples: Beautician; Wig Stylist; Electrologist

39-5091 Makeup Artists, Theatrical and Performance

Apply makeup to performers to reflect period, setting, and situation of their role.

39-5092 Manicurists and Pedicurists

Clean and shape customers' fingernails and toenails. May polish or decorate nails.

Illustrative Example: Fingernail Sculptor

39-5093 Shampooers

Shampoo and rinse customers' hair.

Illustrative Example: Scalp Treatment Operator

39-5094 Skin Care Specialists

Provide skin care treatments to face and body to enhance an individual's appearance.

Illustrative Example: Esthetician

39-6011 Baggage Porters and Bellhops

Handle baggage for travelers at transportation terminals or for guests at hotels or similar establishments.

Illustrative Examples: Baggage Handler; Lobby Porter; Skycap

39-6012 Concierges

Assist patrons at hotel, apartment or office building with personal services. May take messages, arrange or give advice on transportation, business services or entertainment, or monitor guest requests for housekeeping and maintenance.

39-6021 Tour Guides and Escorts

Escort individuals or groups on sightseeing tours or through places of interest, such as industrial establishments, public buildings, and art galleries.

Illustrative Examples: Page; Sightseeing Guide

39-6022 Travel Guides

Plan, organize, and conduct long distance cruises, tours, and expeditions for individuals and groups.

Illustrative Examples: Cruise Director; Tour Director

39-6031 Flight Attendants

Provide personal services to ensure the safety and comfort of airline passengers during flight. Greet passengers, verify tickets, explain use of safety equipment, and serve food or beverages.

Illustrative Examples: Flight Steward; Airline Stewardess

39-6032 Transportation Attendants, Ex. Flight Attendants and Baggage Porters

Provide services to ensure the safety and comfort of passengers aboard ships, buses, trains, or within the station or terminal. Perform duties, such as greeting passengers, explaining the use of safety equipment, serving meals or beverages, or answering questions related to travel.

Illustrative Examples: Club Car Attendant; Ground Attendant; Subway Conductor

39-9011 Child Care Workers

Attend to children at schools, businesses, private households, and child care institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play. Exclude "Preschool Teachers" (25-2011) and "Teacher Assistants" (25-9041).

Illustrative Examples: Baby Sitter; Governess; Nanny

39-9021 Personal and Home Care Aides

Assist elderly or disabled adults with daily living activities at the person's home or in a daytime non-residential facility. Duties performed at a place of residence may include keeping house (making beds, doing laundry, washing dishes) and preparing meals.

May provide meals and supervised activities at non-residential care facilities. May advise families, the elderly, and disabled on such things as nutrition, cleanliness, and household utilities.

Illustrative Examples: Blind Escort; Caregiver; Geriatric Aide

39-9031 Fitness Trainers and Aerobics Instructors

Instruct or coach groups or individuals in exercise activities and the fundamentals of sports. Demonstrate techniques and methods of participation. Observe participants and inform them of corrective measures necessary to improve their skills. Those required to hold teaching degrees should be reported in the appropriate teaching category. Exclude "Athletic Trainers" (29-9091).

Illustrative Examples: Exercise Teacher; Personal Trainer; Yoga Teacher

39-9032 Recreation Workers

Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.

Illustrative Examples: Camp Counselor; Playground Director; Activities Director

39-9041 Residential Advisors

Coordinate activities for residents of boarding schools, college fraternities or sororities, college dormitories, or similar establishments. Order supplies and determine need for maintenance, repairs, and furnishings. May maintain household records and assign rooms. May refer residents to counseling resources if needed.

Illustrative Examples: Dormitory Supervisor; House Parent

39-9099 Personal Care and Service Workers, All Other

All personal care and service workers not listed separately.

Illustrative Examples: Shoe Shiner; Chaperone; Servant

Sales and Related

41-1011 First-Line Supervisors/Managers of Retail Sales Workers

Directly supervise sales workers in a retail establishment or department. Duties may include management functions, such as purchasing, budgeting, accounting, and personnel work, in addition to supervisory duties.

Illustrative Examples: Department Manager; Flower Shop Manager; Supervisor of Cashiers

41-1012 First-Line Supervisors/Managers of Non-Retail Sales Workers

Directly supervise and coordinate activities of sales workers other than retail sales workers. May perform duties, such as budgeting, accounting, and personnel work, in addition to supervisory duties.

Illustrative Examples: District Sales Manager; Dry Cleaning Manager; Blood-Donor Recruiter Supervisor

41-2011 Cashiers

Receive and disburse money in establishments other than financial institutions. Usually involves use of electronic scanners, cash registers, or related equipment. Often involved in processing credit or debit card transactions and validating checks.

Illustrative Examples: Auction Clerk; Toll Collector; Disbursement Clerk

41-2012 Gaming Change Persons and Booth Cashiers

Exchange coins and tokens for patrons' money. May issue payoffs and obtain customer's signature on receipt when winnings exceed the amount held in the slot machine. May operate a booth in the slot machine area and furnish change persons with money bank at the start of the shift, or count and audit money in drawers.

Illustrative Examples: Carousel Attendant; Slot Attendant

41-2021 Counter and Rental Clerks

Receive orders for repairs, rentals, and services. May describe available options, compute cost, and accept payment.

Illustrative Examples: Airplane-Charter Clerk; Car Rental Agent; Skate Shop Attendant

41-2022 Parts Salespersons

Sell spare and replacement parts and equipment in repair shop or parts store.

Illustrative Examples: Parts Clerk; Auto Parts Salesperson; Electronic Parts Salesperson

41-2031 Retail Salespersons

Sell merchandise, such as furniture, motor vehicles, appliances, or apparel in a retail establishment. Exclude "Cashiers" (41-2011).

Illustrative Examples: Car Dealer; Haberdasher; Wallpaper Salesperson

41-3011 Advertising Sales Agents

Sell or solicit advertising, Inc. graphic art, advertising space in publications, custom made signs, or TV and radio advertising time. May obtain leases for outdoor advertising sites or persuade retailer to use sales promotion display items.

Illustrative Examples: Radio Time Salesperson; Yellow Pages Salesperson; Leasing Agent Outdoor Advertising

41-3021 Insurance Sales Agents

Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as independent broker, or be employed by an insurance company.

Illustrative Examples: Insurance Broker; Insurance Solicitor; Pension Agent

41-3031 Securities, Commodities, and Financial Services Sales Agents

Buy and sell securities in investment and trading firms, or call upon businesses and individuals to sell financial services. Provide financial services, such as loan, tax, and securities counseling. May advise securities customers about such things as stocks, bonds, and market conditions.

Illustrative Examples: Investment Banker; Stock Broker; Stock Trader

41-3041 Travel Agents

Plan and sell transportation and accommodations for travel agency customers. Determine destination, modes of transportation, travel dates, costs, and accommodations required.

Illustrative Examples: Travel Consultant; Travel Counselor

41-3099 Sales Representatives, Services, All Other

All services sales representatives not listed separately.

Illustrative Examples: Crating-And-Moving Estimator; Data Processing Sales Representative; Telecommunications Consultant

41-4011 Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products

Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of post-secondary education.

Illustrative Examples: Electronics Sales Representative; Oilfield Equipment Sales Representative; Pharmaceutical Representative

41-4012 Sales Representatives, Wholesale and Manufacturing, Ex. Technical and Scientific Products

Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.

Illustrative Examples: Diamond Broker; Oil Distributor; Wool Merchant

41-9011 Demonstrators and Product Promoters

Demonstrate merchandise and answer questions for the purpose of creating public interest in buying the product. May sell demonstrated merchandise.

Illustrative Examples: Home Demonstrator; Exhibit-Display Representative

41-9012 Models

Model garments and other apparel to display clothing before prospective buyers at fashion shows, private showings, retail establishments, or photographer. May pose for photos to be used for advertising purposes. May pose as subject for paintings, sculptures, and other types of artistic expression.

Illustrative Examples: Fashion Model; Mannequin; Photographer's Model

41-9021 Real Estate Brokers

Operate real estate office, or work for commercial real estate firm, overseeing real estate transactions. Other duties usually include selling real estate or renting properties and arranging loans.

41-9022 Real Estate Sales Agents

Rent, buy, or sell property for clients. Perform duties, such as study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, and draw up real estate contracts. Include agents who represent buyer.

Illustrative Examples: Apartment Rental Agent; Land Agent; Right of Way Agent

41-9031 Sales Engineers

Sell business goods or services, the selling of which requires a technical background equivalent to a baccalaureate degree in engineering. Exclude "Engineers" (17-2011 through 17-2199) whose primary function is not marketing or sales.

Illustrative Examples: Aeronautical Products Sales Engineer; Industrial Machinery Sales Engineer; Nuclear Equipment Sales Engineer

41-9041 Telemarketers

Solicit orders for goods or services over the telephone.

Illustrative Examples: Telephone Salesperson; Telephone Solicitor

41-9091 Door-to-Door Sales Workers, News and Street Vendors, and Related Workers

Sell goods or services door-to-door or on the street.

Illustrative Examples: Peddler; Direct Selling

41-9099 Sales and Related Workers, All Other

All sales and related workers not listed separately.

Illustrative Examples: Bridal Consultant; Auctioneer; Fund Raiser; Data Processing Sales Representative; Telecommunications Consultant

Office and Administrative Support

43-1011 First-Line Supervisors/Managers of Office and Administrative Support Workers

Supervise and coordinate the activities of clerical and administrative support workers.

Illustrative Examples: Claims Supervisor; Stock Room Manager; Teller Supervisor

43-2011 Switchboard Operators, Inc. Answering Service

Operate telephone business systems equipment or switchboards to relay incoming, outgoing, and

interoffice calls. May supply information to callers and record messages.

Illustrative Examples: Communication Center Operator; Exchange Operator; Telephone Answering Service Operator

43-2021 Telephone Operators

Provide information by accessing alphabetical and geographical directories. Assist customers with special billing requests, such as charges to a third party and credits or refunds for incorrectly dialed numbers or bad connections. May handle emergency calls and assist children or people with physical disabilities to make telephone calls.

Illustrative Examples: Directory Assistance Operator; Long Distance Operator; Routing Operator

43-2099 Communications Equipment Operators, All Other

All communications equipment operators not listed separately.

Illustrative Example: Telegraph Operator

43-3011 Bill and Account Collectors

Locate and notify customers of delinquent accounts by mail, telephone, or personal visit to solicit payment. Duties include receiving payment and posting amount to customer's account; preparing statements to credit department if customer fails to respond; initiating repossession proceedings or service disconnection; keeping records of collection and status of accounts.

Illustrative Examples: Payment Collector; Collection Clerk; Installment Agent

43-3021 Billing and Posting Clerks and Machine Operators

Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods.

Illustrative Examples: Calculating Machine Operator; Invoice Control Clerk; Rating Clerk

43-3031 Bookkeeping, Accounting, and Auditing Clerks

Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to

business transactions recorded by other workers.

Illustrative Examples: Accounts Receivable Clerk; Ledger Clerk; Voucher Examiner

43-3041 Gaming Cage Workers

In a gaming establishment, conduct financial transactions for patrons. May reconcile daily summaries of transactions to balance books. Accept patron's credit application and verify credit references to provide check-cashing authorization or to establish house credit accounts. May sell gambling chips, tokens, or tickets to patrons, or to other workers for resale to patrons. May convert gaming chips, tokens, or tickets to currency upon patron's request. May use a cash register or computer to record transaction.

43-3051 Payroll and Timekeeping Clerks

Compile and post employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions. May prepare paychecks.

Illustrative Examples: Attendance Clerk; Payroll Bookkeeper; Timekeeper

43-3061 Procurement Clerks

Compile information and records to draw up purchase orders for procurement of materials and services.

Illustrative Examples: Property and Supply Officer; Purchasing Clerk

43-3071 Tellers

Receive and pay out money. Keep records of money and negotiable instruments involved in a financial institution's various transactions.

Illustrative Examples: Foreign Exchange Clerk; Money Order Clerk; Securities Teller

43-4011 Brokerage Clerks

Perform clerical duties involving the purchase or sale of securities. Duties include writing orders for stock purchases and sales, computing transfer taxes, verifying stock transactions, accepting and delivering securities, tracking stock price fluctuations, computing equity, distributing dividends, and keeping records of daily transactions and holdings.

Illustrative Examples: Portfolio Assistant; Dividend Clerk; Telephone Quotation Clerk

43-4021 Correspondence Clerks

Compose letters in reply to requests for merchandise, damage claims, credit and other information, delinquent accounts, incorrect billings, or unsatisfactory services. Duties may include gathering data to formulate reply and typing correspondence.

Illustrative Examples: Collection Correspondent; Fan Mail Editor

43-4031 Court, Municipal, and License Clerks

Perform clerical duties in courts of law, municipalities, and governmental licensing agencies and bureaus. May prepare docket of cases to be called; secure information for judges and court; prepare draft agendas or bylaws for town or city council; answer official correspondence; keep fiscal records and accounts; issue licenses or permits; record data, administer tests, or collect fees. Include chief clerks with "Managers, All Other" (11-9199).

Illustrative Examples: Circuit Court Clerk; Warrant Clerk

43-4041 Credit Authorizers, Checkers, and Clerks

Authorize credit charges against customers' accounts. Investigate history and credit standing of individuals or business establishments applying for credit. May interview applicants to obtain personal and financial data; determine credit worthiness; process applications; and notify customers of acceptance or rejection of credit.

Illustrative Examples: Credit Interviewer; Credit Rating Inspector; Loan Adjuster

43-4051 Customer Service Representatives

Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints. Exclude individuals whose duties are primarily sales or repair.

Illustrative Examples: Complaint Adjuster; Passenger Relations Representative; Telephone Service Adviser

43-4061 Eligibility Interviewers, Government Programs

Determine eligibility of persons applying to receive assistance from government programs and agency resources, such as welfare, unemployment benefits, social security, and public housing.

Illustrative Examples: Unemployment Benefits Claims Taker; County Service Officer; Welfare Interviewer

43-4071 File Clerks

File correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order or according to the filing system used. Locate and remove material from file when requested.

Illustrative Examples: Computer Tape Librarian; Document Clerk; Records Custodian

43-4081 Hotel, Motel, and Resort Desk Clerks

Accommodate hotel, motel, and resort patrons by registering and assigning rooms to guests, issuing room keys, transmitting and receiving messages, keeping records of occupied rooms and guests' accounts, making and confirming reservations, and presenting statements to and collecting payments from departing guests.

Illustrative Examples: Register Clerk; Room Clerk

43-4111 Interviewers, Ex. Eligibility and Loan

Interview persons by telephone, mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons with completing form. May sort, classify, and file forms.

Illustrative Examples: Census Taker; Market Research Interviewer; Out-patient Admitting Clerk

43-4121 Library Assistants, Clerical

Compile records, sort and shelve books, and issue and receive library materials such as pictures, cards, slides and microfilm. Locate library materials for loan and replace material in shelving area, stacks, or files according to identification number and title. Register patrons to permit them to borrow books, periodicals, and other library materials.

Illustrative Examples: Braille and Talking Books Clerk; Circulation Clerk; Microfilm Clerk

43-4131 Loan Interviewers and Clerks

Interview loan applicants to elicit information; investigate applicants' backgrounds and verify references; prepare loan request papers; and forward findings, reports, and documents to appraisal department. Review loan papers to ensure completeness, and complete transactions between loan establishment, borrowers, and sellers upon approval of loan.

Illustrative Examples: Loan Closer; Loan Processor; Mortgage Clerk

43-4141 New Accounts Clerks

Interview persons desiring to open bank accounts. Explain banking services available to prospective customers and assist them in preparing application form.

Illustrative Example: Banking Services Clerk

43-4151 Order Clerks

Receive and process incoming orders for materials, merchandise, classified ads, or services such as repairs, installations, or rental of facilities. Duties include informing customers of receipt, prices, shipping dates, and delays; preparing contracts; and handling complaints. Exclude "Dispatchers, Ex. Police, Fire, and Ambulance" (43-5032) who both dispatch and take orders for services.

Illustrative Examples: Catalogue Clerk; Subscription Clerk; Classified Advertisement Clerk

43-4161 Human Resources Assistants, Ex. Payroll and Timekeeping

Compile and keep personnel records. Record data for each employee, such as address, weekly earnings, absences, amount of sales or production, supervisory reports on ability, and date of and reason for termination. Compile and type reports from employment records. File employment records. Search employee files and furnish information to authorized persons.

Illustrative Example: Personnel Clerk

43-4171 Receptionists and Information Clerks

Answer inquiries and obtain information for general public, customers, visitors, and other interested parties. Provide information regarding activities conducted at establishment; location of departments, offices, and employees within organization. Exclude "Switchboard Operators, Inc. Answering Service" (43-2011).

Illustrative Examples: Appointment Clerk; Front Desk Clerk; Referral and Information Aide

43-4181 Reservation and Transportation Ticket Agents and Travel Clerks

Make and confirm reservations and sell tickets to passengers and for large hotel or motel chains. May check baggage and direct passengers to designated concourse, pier, or track; make reservations, deliver tickets, arrange for visas, contact individuals and groups to inform them of package tours, or provide tourists with travel information, such as points of interest, restaurants, rates, and emergency service.

Exclude “Travel Agents” (41-3041), “Hotel, Motel, and Resort Desk Clerks” (43-4081), and “Cashiers” (41-2011) who sell tickets for local transportation.

Illustrative Examples: Ticket Clerk; Hotel Reservationist; Gate Agent

43-4199 Information and Record Clerks, All Other

All information and record clerks not listed separately.

Illustrative Examples: Student Admissions Clerk; Suggestion Clerk; Vault Custodian

43-4999 Financial, Information, and Record Clerks, All Other (OES code only)

43-5011 Cargo and Freight Agents

Expedite and route movement of incoming and outgoing cargo and freight shipments in airline, train, and trucking terminals, and shipping docks. Take orders from customers and arrange pickup of freight and cargo for delivery to loading platform. Prepare and examine bills of lading to determine shipping charges and tariffs.

Illustrative Examples: Routing Agent; Shipping Agent

43-5021 Couriers and Messengers

Pick up and carry messages, documents, packages, and other items between offices or departments within an establishment or to other business concerns, traveling by foot, bicycle, motorcycle, automobile, or public conveyance. Exclude “Truck Drivers, Light or Delivery Services” (53-3033).

Illustrative Examples: Message Delivery Clerk; Telegraph Messenger

43-5031 Police, Fire, and Ambulance Dispatchers

Receive complaints from public concerning crimes and police emergencies. Broadcast orders to police patrol units in vicinity of complaint to investigate. Operate radio, telephone, or computer equipment to receive reports of fires and medical emergencies and relay information or orders to proper officials.

Illustrative Examples: 911 Operator; Emergency Operator; Public Safety Dispatcher

43-5032 Dispatchers, Ex. Police, Fire, and Ambulance

Schedule and dispatch workers, work crews, equipment, or service vehicles for conveyance of

materials, freight, or passengers, or for normal installation, service, or emergency repairs rendered outside the place of business. Duties may include using radio, telephone, or computer to transmit assignments and compiling statistics and reports on work progress.

Illustrative Examples: Security Dispatcher; Repair Service Dispatcher; Taxicab Dispatcher

43-5041 Meter Readers, Utilities

Read meter and record consumption of electricity, gas, water, or steam.

Illustrative Examples: Electric Meter Reader; Meter Record Clerk; Water Meter Reader

43-5051 Postal Service Clerks

Perform any combination of tasks in a post office, such as receive letters and parcels; sell postage and revenue stamps, postal cards, and stamped envelopes; fill out and sell money orders; place mail in pigeon holes of mail rack or in bags according to State, address, or other scheme; and examine mail for correct postage.

Illustrative Examples: Parcel Post Clerk; Special Delivery Clerk; Stamp Clerk

43-5052 Postal Service Mail Carriers

Sort mail for delivery. Deliver mail on established route by vehicle or on foot.

Illustrative Examples: Letter Carrier; Mail Deliverer; Route Carrier

43-5053 Postal Service Mail Sorters, Processors, and Processing Machine Operators

Prepare incoming and outgoing mail for distribution. Examine, sort, and route mail by State, type of mail, or other scheme. Load, operate, and occasionally adjust and repair mail processing, sorting, and canceling machinery. Keep records of shipments, pouches, and sacks; and other duties related to mail handling within the postal service. Must complete a competitive exam. Exclude “Postal Service Clerks” (43-5051) and “Postal Service Mail Carriers” (43-5052).

Illustrative Examples: Mail Weigher; Mail Handler Sorting Mail

43-5061 Production, Planning, and Expediting Clerks

Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work,

and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems. Exclude “Weighers, Measurers, Checkers, and Samplers, Recordkeeping” (43-5111).

Illustrative Examples: Assignment Agent; Production Dispatcher; Expediter

43-5071 Shipping, Receiving, and Traffic Clerks

Verify and keep records on incoming and outgoing shipments. Prepare items for shipment. Duties include assembling, addressing, stamping, and shipping merchandise or material; receiving, unpacking, verifying and recording incoming merchandise or material; and arranging for the transportation of products. Exclude “Stock Clerks and Order Fillers” (43-5081) and “Weighers, Measurers, Checkers, and Samplers, Recordkeeping” (43-5111).

Illustrative Examples: Receiver; Garment Sorter; Freight Separator

43-5081 Stock Clerks and Order Fillers

Receive, store, and issue sales floor merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May mark prices on merchandise and set up sales displays. Exclude “Laborers and Freight, Stock, and Material Movers, Hand” (53-7062), and “Shipping, Receiving, and Traffic Clerks” (43-5071).

Illustrative Examples: Inventory Control Clerk; Tool-Crib Attendant; Warehouse Clerk

43-5111 Weighers, Measurers, Checkers, and Samplers, Recordkeeping

Weigh, measure, and check materials, supplies, and equipment for the purpose of keeping relevant records. Duties are primarily clerical by nature. Include workers who collect and keep record of samples of products or materials. Exclude production “Inspectors, Testers, Sorters, Samplers, and Weighers” (51-9061).

Illustrative Examples: Counter; Inventory Checker; Scale Attendant

43-5199 Material Recording, Scheduling, Dispatching, and Distributing Workers, All Other (OES code only)

43-6011 Executive Secretaries and Administrative Assistants

Provide high-level administrative support by conducting research, preparing statistical reports,

handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff. Exclude “Secretaries” (43-6012 through 43-6014).

43-6012 Legal Secretaries

Perform secretarial duties utilizing legal terminology, procedures, and documents. Prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. May also assist with legal research.

43-6013 Medical Secretaries

Perform secretarial duties utilizing specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.

Illustrative Examples: Psychiatric Secretary; Dental Secretary

43-6014 Secretaries, Ex. Legal, Medical, and Executive

Perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers. Exclude legal, medical, or executive secretaries and administrative assistants (43-6011 through 43-6013).

Illustrative Examples: Personal Secretary; Office Secretary; Receptionist Secretary

43-9011 Computer Operators

Monitor and control electronic computer and peripheral electronic data processing equipment to process business, scientific, engineering, and other data according to operating instructions. May enter commands at a computer terminal and set controls on computer and peripheral devices. Monitor and respond to operating and error messages. Exclude “Data Entry Keyers” (43-9021).

Illustrative Examples: Console Operator; Data Processing Clerk; Peripheral Equipment Operator

43-9021 Data Entry Keyers

Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing. Exclude “Word Processors and Typists” (43-9022).

Illustrative Examples: Keypunch Operator; Data Typist

43-9022 Word Processors and Typists

Use word processor/computer or typewriter to type letters, reports, forms, or other material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned. Include composing data keyers. Exclude "Data Entry Keyers" (43-9021), "Secretaries and Administrative Assistants" (43-6011 through 43-6014), "Court Reporters" (23-2091), and "Medical Transcriptionists" (31-9094).

Illustrative Examples: Clerk Typist; Dictaphone Typist

43-9031 Desktop Publishers

Format typescript and graphic elements using computer software to produce publication-ready material.

Illustrative Examples: Computer Composer; Electronic Pagination System Operator; Page Makeup System Operator

43-9041 Insurance Claims and Policy Processing Clerks

Process new insurance policies, modifications to existing policies, and claims forms. Obtain information from policyholders to verify the accuracy and completeness of information on claims forms, applications and related documents, and company records. Update existing policies and company records to reflect changes requested by policyholders and insurance company representatives. Exclude "Claims Adjusters, Examiners, and Investigators" (13-1031).

Illustrative Examples: Claim Taker; Policy Issue Clerk; Underwriting Clerk

43-9051 Mail Clerks and Mail Machine Operators, Ex. Postal Service

Prepare incoming and outgoing mail for distribution. Use hand or mail handling machines to time stamp, open, read, sort, and route incoming mail; and address, seal, stamp, fold, stuff, and affix postage to outgoing mail or packages. Duties may also include keeping necessary records and completed forms.

Illustrative Examples: Addressing Machine Operator; Mail Distributor; Mail Opener

43-9061 Office Clerks, General

Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring limited knowledge of office management systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word

processing, stenography, office machine operation, and filing.

Illustrative Examples: Administrative Clerk; Office Assistant; Real Estate Clerk

43-9071 Office Machine Operators, Ex. Computer

Operate one or more of a variety of office machines, such as photocopying, photographic, and duplicating machines, or other office machines. Exclude "Computer Operators" (43-9011), "Mail Clerks and Mail Machine Operators" (43-9051) and "Billing and Posting Clerks and Machine Operators" (43-3021).

Illustrative Examples: Check Embosser; Coin Wrapping Machine Operator; Copy Machine Operator

43-9081 Proofreaders and Copy Markers

Read transcript or proof type setup to detect and mark for correction any grammatical, typographical, or compositional errors. Exclude workers whose primary duty is editing copy. Include proofreaders of Braille.

Illustrative Examples: Braille Proofreader; Copy Reader

43-9111 Statistical Assistants

Compile and compute data according to statistical formulas for use in statistical studies. May perform actuarial computations and compile charts and graphs for use by actuaries. Include actuarial clerks.

Illustrative Examples: Tabulating Clerk; Compiler; Data Technician

43-9199 Office and Administrative Support Workers, All Other

All office and administrative support workers not listed separately.

Illustrative Examples: Notary Public; Envelope Stuffer

43-9999 Secretaries, Administrative Assistants, and Other Office Support Workers, All Other (OES code only)

Farming, Fishing, and Forestry

45-1011 First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers

Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers. Exclude "First-Line Supervisors/Managers of

Landscaping, Lawn Service, and Groundskeeping Workers” (37-1012).

Illustrative Examples: Christmas Tree Farm Manager; Harvest Crew Supervisor; Fish Hatchery Supervisor

45-1012 Farm Labor Contractors

Recruit, hire, furnish, and supervise seasonal or temporary agricultural laborers for a fee. May transport, house, and provide meals for workers.

Illustrative Example: Harvesting Contractor

45-2011 Agricultural Inspectors

Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.

Illustrative Examples: Cattle Examiner; Meat Grader; Grain Sampler

45-2021 Animal Breeders

Breed animals, Inc. cattle, goats, horses, sheep, swine, poultry, dogs, cats, or pet birds. Select and breed animals according to their genealogy, characteristics, and offspring. May require a knowledge of artificial insemination techniques and equipment use. May involve keeping records on heats, birth intervals, or pedigree. Exclude “Non-farm Animal Caretakers” (39-2021) who may occasionally breed animals as part of their other caretaking duties. Exclude “Animal Scientists” (19-1011) whose primary function is research.

Illustrative Examples: Artificial Inseminator; Chicken Fancier; Horse Breeder

45-2031 Farm Labor Contractors (OES Code Only –Same as Code 45-1012)

45-2041 Graders and Sorters, Agricultural Products

Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition. Exclude “Agricultural Inspectors” (45-2011).

Illustrative Examples: Chicken Grader; Cotton Classifier; Fruit Sorter

45-2091 Agricultural Equipment Operators

Drive and control farm equipment to till soil and to plant, cultivate, and harvest crops. May perform tasks, such as crop baling or hay bucking. May operate stationary equipment to perform post-harvest tasks, such as husking, shelling, threshing, and ginning.

Illustrative Examples: Baler; Combine Operator; Tractor Driver

45-2092 Farmworkers and Laborers, Crop, Nursery, and Greenhouse

Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; cleaning, grading, sorting, packing and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities. Exclude “Graders and Sorters, Agricultural Products” (45-2041). Exclude “Forest, Conservation, and Logging Workers” (45-4011 through 45-4029).

Illustrative Examples: Apple Picker; Tobacco Cutter; Vegetable Loader

45-2093 Farmworkers, Farm and Ranch Animals

Attend to live farm, ranch, or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas. Include workers who shear wool from sheep, and collect eggs in hatcheries.

Illustrative Examples: Horse Groomer; Beekeeper; Livestock Feeder

45-2099 Agricultural Workers, All Other

All agricultural workers not listed separately.

Illustrative Examples: Irrigation Worker; Livestock Showman

45-3011 Fishers and Related Fishing Workers

Use nets, fishing rods, traps, or other equipment to catch and gather fish or other aquatic animals from rivers, lakes, or oceans, for human consumption or other uses. May haul game onto ship. Include aquacultural laborers who work on fish farms with “Agricultural Workers, All Other” (45-2099).

Illustrative Examples: Fishing Boat Captain; Crabber; Seaweed Harvester

45-3021 Hunters and Trappers

Hunt and trap wild animals for human consumption, fur, feed, bait, or other purposes.

Illustrative Examples: Predatory Animal Exterminator; Bird Trapper

45-4011 Forest and Conservation Workers

Under supervision, perform manual labor necessary to develop, maintain, or protect forest, forested areas, and woodlands through such activities as raising and transporting tree seedlings; combating insects, pests, and diseases harmful to trees; and building erosion and water control structures and leaching of forest soil. Include forester aides, seedling pullers, and tree planters.

Illustrative Examples: Christmas Tree Farm Worker; Seedling Puller; Forestry Laborer

45-4021 Fallers

Use axes or chainsaws to fell trees using knowledge of tree characteristics and cutting techniques to control direction of fall and minimize tree damage.

Illustrative Examples: Cross Cut Sawyer; Lumberjack; Timber Cutter

45-4022 Logging Equipment Operators

Drive logging tractor or wheeled vehicle equipped with one or more accessories, such as bulldozer blade, frontal shear, grapple, logging arch, cable winches, hoisting rack, or crane boom, to fell tree; to skid, load, unload, or stack logs; or to pull stumps or clear brush.

Illustrative Examples: Log Hauler; Logging Tractor Operator; Skidder Driver

45-4023 Log Graders and Scalers

Grade logs or estimate the marketable content or value of logs or pulpwood in sorting yards, millpond, log deck, or similar locations. Inspect logs for defects or measure logs to determine volume. Exclude "Purchasing Agents and Buyers, Farm Products" (13-1021).

Illustrative Examples: Timber Estimator; Landing Scaler

45-4029 Logging Workers, All Other

All logging workers not listed separately.

Illustrative Examples: Barker; Cable Hooker; Rigging Slinger

45-9099 Farming, Fishing, and Forestry Workers, All Other (OES code only)

Construction and Extraction

47-1011 First-Line Supervisors/Managers of Construction Trades and Extraction Workers

Directly supervise and coordinate activities of construction or extraction workers.

Illustrative Examples: Cement Contractor; Quarry Boss

47-2011 Boilermakers

Construct, assemble, maintain, and repair stationary steam boilers and boiler house auxiliaries. Align structures or plate sections to assemble boiler frame tanks or vats, following blueprints. Work involves use of hand and power tools, plumb bobs, levels, wedges, dogs, or turnbuckles. Assist in testing assembled vessels. Direct cleaning of boilers and boiler furnaces. Inspect and repair boiler fittings, such as safety valves, regulators, automatic-control mechanisms, water columns, and auxiliary machines.

Illustrative Examples: Boiler Installer; Boiler Mechanic; Pressure Tester

47-2021 Brickmasons and Blockmasons

Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures. Exclude "Stonemasons" (47-2022). Classify installers of mortarless segmental concrete masonry wall units in "Landscaping and Groundskeeping Workers" (37-3011).

Illustrative Examples: Adobe Layer; Chimney Builder; Furnace Liner

47-2022 Stonemasons

Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors.

Illustrative Examples: Granite Setter; Monument Installer; Rock Mason

47-2031 Carpenters

Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, Inc. partitions, joists, studding, and rafters; wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. Include brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways to control

the proper circulation of air through the passageways and to the working places.

Illustrative Examples: Shipwright; Cabinetmaker; Wood Floor Layer

47-2041 Carpet Installers

Lay and install carpet from rolls or blocks on floors. Install padding and trim flooring materials. Exclude “Floor Layers, Ex. Carpet, Wood, and Hard Tiles” (47-2042).

Illustrative Examples: Floor Coverer; Rug Layer

47-2042 Floor Layers, Ex. Carpet, Wood, and Hard Tiles

Apply blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative coverings to floors.

Illustrative Examples: Composition Floor Setter; Linoleum Layer; Soft Tile Setter

47-2043 Floor Sanders and Finishers

Scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machine, and apply coats of finish.

Illustrative Examples: Floor Sanding Machine Operator; Floor Surfacers; Hardwood Finisher

47-2044 Tile and Marble Setters

Apply hard tile, marble, and wood tile to walls, floors, ceilings, and roof decks.

Illustrative Examples: Ceramic Tile Installer; Hard Tile Setter; Marble Installer

47-2051 Cement Masons and Concrete Finishers

Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; use saws to cut expansion joints. Classify installers of mortarless segmental concrete masonry wall units in “Landscaping and Groundskeeping Workers. (37-3011).

Illustrative Examples: Curb Builder; Concrete Floor Installer

47-2053 Terrazzo Workers and Finishers

Apply a mixture of cement, sand, pigment, or marble chips to floors, stairways, and cabinet fixtures to fashion durable and decorative surfaces.

Illustrative Example: Artificial Marble Worker

47-2061 Construction Laborers

Perform tasks involving physical labor at building, highway, and heavy construction projects, tunnel and shaft excavations, and demolition sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, clean up rubble and debris, and remove asbestos, lead, and other hazardous waste materials. May assist other craft workers. Exclude construction laborers who primarily assist a particular craft worker, and classify them under “Helpers, Construction Trades” (47-3011 through 47-3016).

Illustrative Examples: Air Hammer Operator; Asphalt Patcher; Construction Craft Laborer

47-2071 Paving, Surfacing, and Tamping Equipment Operators

Operate equipment used for applying concrete, asphalt, or other materials to road beds, parking lots, or airport runways and taxiways, or equipment used for tamping gravel, dirt, or other materials. Include concrete and asphalt paving machine operators, form tampers, tamping machine operators, and stone spreader operators.

Illustrative Examples: Asphalt Spreader Operator; Black Top Machine Operator; Road Grader

47-2072 Pile-Driver Operators

Operate pile drivers mounted on skids, barges, crawler treads, or locomotive cranes to drive pilings for retaining walls, bulkheads, and foundations of structures, such as buildings, bridges, and piers.

Illustrative Examples: Nozzle Operator; Pile Driver Engineer

47-2073 Operating Engineers and Other Construction Equipment Operators

Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties. Exclude “Crane and Tower Operators” (53-7021) and equipment operators who work in extraction or other non-construction industries.

Illustrative Examples: Bulldozer Operator; Power Grader Operator; Steam Shovel Operator

47-2081 Drywall and Ceiling Tile Installers

Apply plasterboard or other wallboard to ceilings or interior walls of buildings. Apply or mount acoustical tiles or blocks, strips, or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound. Materials may be of decorative quality. Include lathers who fasten wooden, metal, or rockboard lath to walls, ceilings or partitions of buildings to provide support base for plaster, fire-proofing, or acoustical material. Exclude "Carpenters" (47-2031), and "Tile and Marble Setters" (47-2044).

Illustrative Examples: Acoustical Carpenter; Lather; Sheet Rock Hanger

47-2082 Tapers

Seal joints between plasterboard or other wallboard to prepare wall surface for painting or papering.

Illustrative Examples: Sheet Rock Taper; Wall Taper

47-2111 Electricians

Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. Exclude "Security and Fire Alarm Systems Installers" (49-2098).

Illustrative Examples: Electrical Sign Servicer; House Wirer; Chief Electrician

47-2121 Glaziers

Install glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops.

Illustrative Examples: Window Glass Installer; Plate Glass Installer; Stained Glass Glazier

47-2130 Insulation Workers

This broad occupation includes the following two detailed occupations:

47-2131 Insulation Workers, Floor, Ceiling, and Wall (SOC code only)

Line and cover structures with insulating materials. May work with batt, roll, or blown insulation materials.

47-2132 Insulation Workers, Mechanical (SOC code only)

Apply insulating materials to pipes or ductwork, or other mechanical systems in order to help control and maintain temperature.

Illustrative Examples: Fiberglass Insulation Installer; Composition Weatherboard Installer; Boiler Coverer; Pipe Coverer

47-2141 Painters, Construction and Maintenance

Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency. Exclude "Paperhangers" (47-2142).

Illustrative Examples: Bridge Painter; Traffic Line Painter; House Painter

47-2142 Paperhangers

Cover interior walls and ceilings of rooms with decorative wallpaper or fabric, or attach advertising posters on surfaces, such as walls and billboards. Duties include removing old materials from surface to be papered.

Illustrative Examples: Billboard Poster; Wallpaperer

47-2151 Pipelayers

Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints. Exclude "Welders, Cutters, Solderers, and Brazers" (51-4121).

Illustrative Examples: Trench Pipe Layer; Pipe Liner; Sewer Connector

47-2152 Plumbers, Pipefitters, and Steamfitters

Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems.

Illustrative Examples: Gas Line Installer; Hot Water Heater Installer; Sprinkling System Installer

47-2161 Plasterers and Stucco Masons

Apply interior or exterior plaster, cement, stucco, or similar materials. May also set ornamental plaster.

Illustrative Examples: Dry Plasterer; Stucco Worker; Ornamental Plasterer

47-2171 Reinforcing Iron and Rebar Workers

Position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools. Include rod busters.

Illustrative Examples: Reinforcing Rod Layer; Rod Buster; Steel Tier

47-2181 Roofers

Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, and related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.

Illustrative Examples: Slater; Hot Tar Roofer; Terra Cotta Roofer

47-2211 Sheet Metal Workers

Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; inspecting, assembling, and smoothing seams and joints of burred surfaces. Include sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes.

Illustrative Examples: Duct Installer, Metal Work; Tinsmith

47-2221 Structural Iron and Steel Workers

Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings. Exclude "Reinforcing Iron and Rebar Workers" (47-2171).

Illustrative Examples: Bolter; Guard Rail Installer; Construction Ironworker

47-3011 Helpers –Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters

Help brickmasons, blockmasons, stonemasons, or tile and marble setters by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Exclude apprentice workers and report them with the appropriate skilled construction trade occupation (47-2011 through 47-2221). Exclude construction laborers who do not primarily assist brickmasons, blockmasons, and stonemasons or tile and marble setters, and classify them under "Construction Laborers" (47-2061).

Illustrative Examples: Brick Carrier; Brick Washer; Tile Layers Helper

47-3012 Helpers –Carpenters

Help carpenters by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Exclude apprentice workers and report them with the appropriate skilled construction trade occupation (47-2011 through 47-2221). Exclude construction laborers who do not primarily assist carpenters, and classify them under "Construction Laborers" (47-2061).

Illustrative Examples: Carpenter's Mate; Joiner's Helper; Cabinetmakers Helper

47-3013 Helpers –Electricians

Help electricians by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Exclude apprentice workers and report them with the appropriate skilled construction trade occupation (47-2011 through 47-2221). Exclude construction laborers who do not primarily assist electricians, and classify them under "Construction Laborers" (47-2061).

Illustrative Examples: Utilities Ground Worker; Electrician's Assistant

47-3014 Helpers –Painters, Paperhangers, Plasterers, and Stucco Masons

Help painters, paperhangers, plasterers, or stucco masons by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Exclude apprentice workers and report them with the appropriate skilled construction trade occupation (47-2011 through 47-2221). Exclude construction laborers who do not primarily assist painters, paperhangers, plasterers, or stucco masons, and classify them under "Construction Laborers" (47-2061).

Illustrative Example: Plaster Tender

47-3015 Helpers –Pipelayers, Plumbers, Pipefitters, and Steamfitters

Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Exclude apprentice workers and report them with the appropriate skilled construction trade occupation (47-2011 through 47-2221). Exclude construction laborers who do not primarily assist plumbers, pipefitters, steamfitters, or pipelayers, and classify them under "Construction Laborers" (47-2061).

Illustrative Examples: Pipe Cutter; Plumbers Assistant; Water Main Installers Helper

47-3016 Helpers –Roofers

Help roofers by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Exclude apprentice workers and report them with the appropriate skilled construction trade occupation (47-2011 through 47-2221). Exclude construction laborers who do not primarily assist roofers, and classify them under “Construction Laborers” (47-2061).

Illustrative Example: Roofer’s Assistant

47-3019 Helpers, Construction Trades, All Other

All construction trades helpers not listed separately.

Illustrative Examples: Cement Mixer; Glazier’s Helper; Surveyor Helper

47-4011 Construction and Building Inspectors

Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.

Illustrative Examples: Highway Inspector; Electrical Inspector; Architectural Inspector

47-4021 Elevator Installers and Repairers

Assemble, install, repair, or maintain electric or hydraulic freight or passenger elevators, escalators, or dumbwaiters.

Illustrative Examples: Escalator Installer; Elevator Mechanic; Hydraulic Elevator Constructor

47-4031 Fence Erectors

Erect and repair metal and wooden fences and fence gates around highways, industrial establishments, residences, or farms, using hand and power tools.

Illustrative Examples: Wire Fence Builder; Wood Fence Installer

47-4041 Hazardous Materials Removal Workers

Identify, remove, pack, transport, or dispose of hazardous materials, Inc. asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, contaminated soil, etc. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks.

Illustrative Examples: Asbestos Remover; Irradiated Fuel Handler; Hazardous Waste Remover

47-4051 Highway Maintenance Workers

Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement, repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road or plow snow from roadway. Exclude “Tree Trimmers and Pruners” (37-3013).

Illustrative Examples: Snow Plow Operator; Road Patcher; Road Sign Installer

47-4061 Rail-Track Laying and Maintenance Equipment Operators

Lay, repair, and maintain track for standard or narrow-gauge railroad equipment used in regular railroad service or in plant yards, quarries, sand and gravel pits, and mines. Include ballast cleaning machine operators and road bed tamping machine operators.

Illustrative Examples: Ballast Cleaning Machine Operator; Track Surfacing Machine Operator; Track Dresser

47-4071 Septic Tank Servicers and Sewer Pipe Cleaners

Clean and repair septic tanks, sewer lines, or drains. May patch walls and partitions of tank, replace damaged drain tile, or repair breaks in underground piping.

Illustrative Examples: Sewage Screen Operator; Septic Tank Cleaner; Electric Sewer Cleaning Machine Operator

47-4091 Segmental Pavers

Lay out, cut, and paste segmental paving units. Include installers of bedding and restraining materials for the paving units.

Illustrative Examples: Concrete Paver Installer; Interlocking Concrete Pavement Installer

47-4099 Construction and Related Workers, All Other

All construction and related workers not listed separately.

Illustrative Examples: Aluminum Pool Installer; Building Wrecker; Waterproofer

47-4999 Construction Trades and Related Workers, All Other (OES code only)

47-5011 Derrick Operators, Oil and Gas

Rig derrick equipment and operate pumps to circulate mud through drill hole.

Illustrative Examples: Rotary Derrick Operator; Well Service Derrick Worker

47-5012 Rotary Drill Operators, Oil and Gas

Set up or operate a variety of drills to remove petroleum products from the earth and to find and remove core samples for testing during oil and gas exploration.

Illustrative Examples: Cable Tool Operator; Core Driller; Well Driller

47-5013 Service Unit Operators, Oil, Gas, and Mining

Operate equipment to increase oil flow from producing wells or to remove stuck pipe, casing, tools, or other obstructions from drilling wells. May also perform similar services in mining exploration operations. Include fishing-tool technicians.

Illustrative Examples: Fishing Tool Operator; Well Cleaner

47-5021 Earth Drillers, Ex. Oil and Gas

Operate a variety of drills — such as rotary, churn, and pneumatic — to tap sub-surface water and salt deposits, to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction. May use explosives. Include horizontal and earth boring machine operators.

Illustrative Examples: Auger Operator; Earth Boring Machine Operator; Tunneling Machine Operator

47-5031 Explosives Workers, Ordnance Handling Experts, and Blasters

Place and detonate explosives to demolish structures or to loosen, remove, or displace earth, rock, or other materials. May perform specialized handling, storage, and accounting procedures. Include seismograph shooters. Exclude “Earth Drillers, Ex. Oil and Gas” (47-5021) who may also work with explosives.

Illustrative Examples: Dynamiter; Explosives Expert; Blast Setter

47-5041 Continuous Mining Machine Operators

Operate self-propelled mining machines that rip coal, metal and nonmetal ores, rock, stone, or sand from the face and load it onto conveyors or into shuttle cars in a

continuous operation.

47-5042 Mine Cutting and Channeling Machine Operators

Operate machinery — such as longwall shears, plows, and cutting machines — to cut or channel along the face or seams of coal mines, stone quarries, or other mining surfaces to facilitate blasting, separating, or removing minerals or materials from mines or from the earth’s surface. Include shale planers.

Illustrative Examples: Coal Cutter; Long Wall Mining Machine Tender; Shale Planer Operator

47-5049 Mining Machine Operators, All Other

All mining machine operators not listed separately.

Illustrative Examples: Extraction Machine Operator; Hydraulic Operator; Rock Duster

47-5051 Rock Splitters, Quarry

Separate blocks of rough dimension stone from quarry mass using jackhammer and wedges.

Illustrative Examples: Quarry Plug and Feather Driller; Rock Breaker

47-5061 Roof Bolters, Mining

Operate machinery to install roof support bolts in underground mine.

47-5071 Roustabouts, Oil and Gas

Assemble or repair oil field equipment using hand and power tools. Perform other tasks as needed.

Illustrative Examples: Connection Worker; Oil Field Laborer

47-5081 Helpers —Extraction Workers

Help extraction craft workers, such as earth drillers, blasters and explosives workers, derrick operators, and mining machine operators, by performing duties of lesser skill. Duties include supplying equipment or cleaning work area. Exclude apprentice workers and report them with the appropriate extraction trade occupation (47-5011 through 47-5099).

Illustrative Examples: Blasters Helper; Tunnel Mucker; Mining Helper

47-5099 Extraction Workers, All Other

All extraction workers not listed separately.

Illustrative Examples: Chute Operator; Coal Digger; Sandfill Operator

Installation, Maintenance, and Repair

49-1011 First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

Supervise and coordinate the activities of mechanics, installers, and repairers. Exclude team or work leaders.

Illustrative Examples: Marine Service Manager; Ground Crew Chief; Engine Repair Supervisor

49-2011 Computer, Automated Teller, and Office Machine Repairers

Repair, maintain, or install computers, word processing systems, automated teller machines, and electronic office machines, such as duplicating and fax machines.

Illustrative Examples: ATM Specialist; Cash Register Servicer; Computer Installer

49-2021 Radio Mechanics

Test or repair mobile or stationary radio transmitting and receiving equipment and two-way radio communications systems used in ship-to-shore communications and found in service and emergency vehicles.

Illustrative Examples: Radio Electrician; Radio Rigger

49-2022 Telecommunications Equipment Installers and Repairers, Ex. Line Installers

Set-up, rearrange, or remove switching and dialing equipment used in central offices. Service or repair telephones and other communication equipment on customers' property. May install equipment in new locations or install wiring and telephone jacks in buildings under construction.

Illustrative Examples: Central Office Equipment Installer; Electronics Installer; Exchange Mechanic

49-2091 Avionics Technicians

Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.

Illustrative Examples: Aircraft Electrician; Automatic Pilot Mechanic; Missile Facilities Repairer

49-2092 Electric Motor, Power Tool, and Related Repairers

Repair, maintain, or install electric motors, wiring, or switches.

Illustrative Examples: Armature Winder; Generator Mechanic; Electric Golf Cart Repairer

49-2093 Electrical and Electronics Installers and Repairers, Transportation Equipment

Install, adjust, or maintain mobile electronics communication equipment, Inc. sound, sonar, security, navigation, and surveillance systems on trains, watercraft, or other mobile equipment. Exclude "Avionics Technicians" (49-2091) and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).

Illustrative Example: Locomotive Electrician

49-2094 Electrical and Electronics Repairers, Commercial and Industrial Equipment

Repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas. Exclude "Avionics Technicians" (49-2091), "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096), and "Electrical and Electronics Installers and Repairers, Transportation Equipment" (49-2093).

Illustrative Examples: Missile Pad Mechanic; Radar Technician; Amplifier Mechanic

49-2095 Electrical and Electronics Repairers, Powerhouse, Substation, and Relay

Inspect, test, repair, or maintain electrical equipment in generating stations, substations, and in-service relays.

Illustrative Examples: Powerhouse Electrician; Relay Technician; Power Transformer Repairer

49-2096 Electronic Equipment Installers and Repairers, Motor Vehicles

Install, diagnose, or repair communications, sound, security, or navigation equipment in motor vehicles.

Illustrative Examples: Auto Phone Installer; Automotive Electrician

49-2097 Electronic Home Entertainment Equipment Installers and Repairers

Repair, adjust, or install audio or television receivers, stereo systems, camcorders, video systems, or other electronic home entertainment equipment.

Illustrative Examples: Electric Organ Technician; Television Mechanic; Satellite Dish Installer

49-2098 Security and Fire Alarm Systems Installers

Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes. Exclude “Electricians” (47-2111) who do a broad range of electrical wiring.

Illustrative Examples: Fire Alarm Installer; Burglar Alarm Mechanic

49-2099 Electrical and Electronic Equipment Mechanics, Installers, and Repairers, All Other (OES code only)

49-3011 Aircraft Mechanics and Service Technicians (SOC code only)

49-3012 Aircraft Mechanics and Service Technicians, FAA certified

Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems. FAA certification required. Include FAA certified helicopter and aircraft engine specialists.

49-3013 Aircraft Mechanics and Service Technicians, not FAA certified

Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems. Include helicopter and aircraft engine specialists.

49-3021 Automotive Body and Related Repairers

Repair and refinish automotive vehicle bodies and straighten vehicle frames. Exclude “Painters, Transportation Equipment” (51-9122) and “Automotive Glass Installers and Repairers” (49-3022).

Illustrative Examples: Auto Body Customizer; Collision Mechanic; Frame Straightener

49-3022 Automotive Glass Installers and Repairers

Replace or repair broken windshields and window glass in motor vehicles.

Illustrative Examples: Auto Glass Mechanic; Windshield Installer; Auto Glass Fitter

49-3023 Automotive Service Technicians and Mechanics

Diagnose, adjust, repair, or overhaul automotive vehicles. Exclude “Automotive Body and Related Repairers” (49-3021), “Bus and Truck Mechanics and Diesel Engine Specialists” (49-3031), and “Electronic Equipment Installers and Repairers, Motor Vehicles” (49-2096).

Illustrative Examples: Auto Brake Mechanic; Fuel Injection Servicer; Auto Transmission Specialist

49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

Diagnose, adjust, repair, or overhaul trucks, buses, and all types of diesel engines. Include mechanics working primarily with automobile diesel engines.

Illustrative Examples: Tractor Trailer Mechanic; Diesel Mechanic; Farm Equipment Engine Mechanic

49-3041 Farm Equipment Mechanics

Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems. Exclude “Bus and Truck Mechanics and Diesel Engine Specialists” (49-3031).

Illustrative Examples: Irrigation Equipment Mechanic; Dairy Equipment Installer

49-3042 Mobile Heavy Equipment Mechanics, Ex. Engines

Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and surface mining. Exclude “Rail Car Repairers” (49-3043) and “Bus and Truck Mechanics and Diesel Engine Specialists” (49-3031).

Illustrative Examples: Construction Equipment Mechanic; Fork Lift Mechanic; Bulldozer Mechanic

49-3043 Rail Car Repairers

Diagnose, adjust, repair, or overhaul railroad rolling stock, mine cars, or mass transit rail cars. Exclude “Bus and Truck Mechanics and Diesel Engine Specialists” (49-3031).

Illustrative Examples: Streetcar Repairer; Mine Car Mechanic

49-3051 Motorboat Mechanics

Repair and adjust electrical and mechanical equipment of gasoline or diesel powered inboard or inboard-outboard boat engines. Exclude “Diesel Engine Specialists” (49-3031).

Illustrative Example: Outboard Motor Mechanic

49-3052 Motorcycle Mechanics

Diagnose, adjust, repair, or overhaul motorcycles, scooters, mopeds, dirt bikes, or similar motorized vehicles.

Illustrative Examples: Motor Scooter Mechanic; Motorcycle Repairer

49-3053 Outdoor Power Equipment and Other Small Engine Mechanics

Diagnose, adjust, repair, or overhaul small engines used to power lawn mowers, chain saws, and related equipment.

Illustrative Examples: Chainsaw Mechanic; Lawn Mower Repairer; Snowmobile Mechanic

49-3091 Bicycle Repairers

Repair and service bicycles.

Illustrative Example: Bicycle Mechanic

49-3092 Recreational Vehicle Service Technicians

Diagnose, inspect, adjust, repair, or overhaul recreational vehicles Inc. travel trailers. May specialize in maintaining gas, electrical, hydraulic, plumbing, or chassis/towing systems as well as repairing generators, appliances, and interior components. Include workers who perform customized van conversions. Exclude "Automotive Service Technicians and Mechanics" (49-3023) and "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031) who also work on recreation vehicles.

Illustrative Example: RV Mechanic

49-3093 Tire Repairers and Changers

Repair and replace tires.

Illustrative Examples: Tire Balancer; Tire Fixer

49-3099 Vehicle and Mobile Equipment Mechanics, Installers, and Repairers, All Other (OES code only)**49-9011 Mechanical Door Repairers**

Install, service, or repair opening and closing mechanisms of automatic doors and hydraulic door closers. Include garage door mechanics.

Illustrative Example: Automatic Door Mechanic

49-9012 Control and Valve Installers and Repairers, Ex. Mechanical Door

Install, repair, and maintain mechanical regulating and controlling devices, such as electric meters, gas regulators, thermostats, safety and flow valves, and other mechanical governors.

Illustrative Examples: Electric Meter Installer; Gas Meter Prover; Thermostat Repairer

49-9021 Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Install or repair heating, central air conditioning, or refrigeration systems, Inc. oil burners, hot-air furnaces, and heating stoves.

Illustrative Examples: Furnace Converter; Gas Furnace Installer; Oil Burner Repairer

49-9031 Home Appliance Repairers

Repair, adjust, or install all types of electric or gas household appliances, such as refrigerators, washers, dryers, and ovens.

Illustrative Examples: Window Air Conditioner Mechanic; Vacuum Cleaner Repairer; Washing Machine Installer

49-9041 Industrial Machinery Mechanics

Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. Exclude "Millwrights" (49-9044), "Mobile Heavy Equipment Mechanics, Ex. Engines" (49-3042), and "Maintenance Workers, Machinery" (49-9043) who perform only routine tasks.

Illustrative Examples: Conveyor Belt Installer; Turbine Mechanic; Hydroelectric Machinery Mechanic

49-9042 Maintenance and Repair Workers, General

Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs. Exclude "Maintenance Workers, Machinery" (49-9043).

Illustrative Examples: Building Maintenance Repairer; Trouble Shooting Mechanic; Mechanical Adjuster

49-9043 Maintenance Workers, Machinery

Lubricate machinery, change parts, or perform other routine machinery maintenance. Exclude "Maintenance and Repair Workers, General" (49-9042).

Illustrative Examples: Belt Repairer; Grease Packer Machine Oiler

49-9044 Millwrights

Install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings.

Illustrative Examples: Machine Erector; Machine Rigger; Machinery Dismantler

49-9045 Refractory Materials Repairers, Ex. Brickmasons

Build or repair furnaces, kilns, cupolas, boilers, converters, ladles, soaking pits, ovens, etc., using refractory materials.

Illustrative Examples: Bondactor Machine Operator; Kiln Door Repairer

49-9051 Electrical Power-Line Installers and Repairers

Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers. Exclude "Electrical and Electronics Repairers, Powerhouse, Substation, and Relay" (49-2095).

Illustrative Examples: Pole Climber; High Tension Tester; Electric Utility Wire Stretcher

49-9052 Telecommunications Line Installers and Repairers

String and repair telephone and television cable, Inc. fiber optics and other equipment for transmitting messages or television programming.

Illustrative Examples: Telecommunications Cable Splicer; Telecommunications Wire Stretcher; Cable Television Installer

49-9061 Camera and Photographic Equipment Repairers

Repair and adjust cameras and photographic equipment, Inc. commercial video and motion picture camera equipment.

Illustrative Examples: Camera Machinist; Photographic Equipment Technician

49-9062 Medical Equipment Repairers

Test, adjust, or repair biomedical or electromedical equipment.

Illustrative Examples: Biomedical Equipment Technician; Hearing Aid Mechanic; Surgical Instrument Mechanic

49-9063 Musical Instrument Repairers and Tuners

Repair percussion, stringed, reed, or wind instruments. May specialize in one area, such as piano tuning. Exclude "Electronic Home Entertainment Equipment Installers and Repairers" (49-2097) who

repair electrical and electronic musical instruments.

Illustrative Examples: Piano Tuner; Violin Repairer; Tone Regulator

49-9064 Watch Repairers

Repair, clean, and adjust mechanisms of timing instruments, such as watches and clocks. Include watchmakers.

Illustrative Examples: Watch and Clock Crowner; Horologist; Watchmaker

49-9069 Precision Instrument and Equipment Repairers, All Other

All precision instrument and equipment repairers not listed separately.

Illustrative Examples: Laboratory Equipment Installer; Gyro Mechanic; Meteorological Equipment Repairer

49-9091 Coin, Vending, and Amusement Machine Servicers and Repairers

Install, service, adjust, or repair coin, vending, or amusement machines Inc. video games, juke boxes, pinball machines, or slot machines.

Illustrative Examples: Cigarette Machine Mechanic; Slot Machine Mechanic; Video Game Mechanic

49-9092 Commercial Divers

Work below surface of water, using scuba gear to inspect, repair, remove, or install equipment and structures. May use a variety of power and hand tools, such as drills, sledgehammers, torches, and welding equipment. May conduct tests or experiments, rig explosives, or photograph structures or marine life. Exclude "Fishers and Related Fishing Workers" (45-3011), "Athletes and Sports Competitors" (27-2021), and "Police and Sheriff's Patrol Officers" (33-3051).

Illustrative Examples: Marine Diver; Scuba Diver; Skin Diver

49-9093 Fabric Menders, Ex. Garment

Repair tears, holes, and other defects in fabrics, such as draperies, linens, parachutes, and tents.

Illustrative Examples: Canvas Repairer; Bag Repairer; Seat Mender

49-9094 Locksmiths and Safe Repairers

Repair and open locks; make keys; change locks and safe combinations; and install and repair safes.

Illustrative Examples: Key Maker; Vault Service Mechanic; Lock Expert

49-9095 Manufactured Building and Mobile Home Installers

Move or install mobile homes or prefabricated buildings.

Illustrative Examples: Mobile Home Mechanic; House trailer Servicer

49-9096 Riggers

Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.

Illustrative Examples: Acrobatic Rigger; Rigging Slinger; Yard Rigger

49-9097 Signal and Track Switch Repairers

Install, inspect, test, maintain, or repair electric gate crossings, signals, signal equipment, track switches, section lines, or intercommunications systems within a railroad system.

Illustrative Examples: Signal Mechanic; Signal Maintainer; Third Rail Installer

49-9098 Helpers—Installation, Maintenance, and Repair Workers

Help installation, maintenance, and repair workers in maintenance, parts replacement, and repair of vehicles, industrial machinery, and electrical and electronic equipment. Perform duties, such as furnishing tools, materials, and supplies to other workers; cleaning work area, machines, and tools; and holding materials or tools for other workers.

Illustrative Examples: Mechanic's Helper; Diver's Helper; Blacksmith's Helper

49-9099 Installation, Maintenance, and Repair Workers, All Other

All mechanical, installation, and repair workers and helpers not listed separately.

Illustrative Examples: Blacksmith; Cooper; Gunsmith

Production

51-1011 First-Line Supervisors/Managers of Production and Operating Workers

Supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Exclude team or work leaders.

Illustrative Examples: Laundromat Manager; Station Chief; Assembly Line Supervisor

51-2011 Aircraft Structure, Surfaces, Rigging, and Systems Assemblers

Assemble, fit, fasten, and install parts of airplanes, space vehicles, or missiles, such as tails, wings, fuselage, bulkheads, stabilizers, landing gear, rigging and control equipment, or heating and ventilating systems.

Illustrative Examples: Aircraft Riveter; Fuselage Framer; Skin Installer

51-2021 Coil Winders, Tapers, and Finishers

Wind wire coils used in electrical components, such as resistors and transformers, and in electrical equipment and instruments, such as field cores, bobbins, armature cores, electrical motors, generators, and control equipment.

Illustrative Examples: Coil Builder; Motor Winder; Wire Coiler

51-2022 Electrical and Electronic Equipment Assemblers

Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries.

Illustrative Examples: Anode Builder; Battery Builder; Industrial Equipment Wirer

51-2023 Electromechanical Equipment Assemblers

Assemble or modify electromechanical equipment or devices, such as servomechanisms, gyros, dynamometers, magnetic drums, tape drives, brakes, control linkage, actuators, and appliances.

Illustrative Examples: Appliance Assembler; Vending Machine Assembler

51-2031 Engine and Other Machine Assemblers

Construct, assemble, or rebuild machines, such as engines, turbines, and similar equipment used in such industries as construction, extraction, textiles, and paper manufacturing.

Illustrative Examples: Machine Builder; Motor Installer; Turbine Assembler

51-2041 Structural Metal Fabricators and Fitters

Fabricate, lay out, position, align, and fit parts of structural metal products.

Illustrative Examples: Manufacturing Ornamental Metal Worker; Metal Box Maker; Protector Plate Attacher

51-2091 Fiberglass Laminators and Fabricators

Laminate layers of fiberglass on molds to form boat decks and hulls, bodies for golf carts, automobiles, or other products

Illustrative Examples: Fiberglass Ski Maker; Fiberglass Boat Builder; Golf Cart Maker

51-2092 Team Assemblers

Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Team leaders who work as part of the team should be included. Exclude assemblers (51-2011 through 51-2099) who continuously perform the same task.

51-2093 Timing Device Assemblers, Adjusters, and Calibrators

Perform precision assembling or adjusting, within narrow tolerances, of timing devices, such as watches, clocks, or chronometers. Exclude "Watch Repairers" (49-9064).

Illustrative Examples: Chronometer Assembler; Hair Spring Truer; Escapement Matcher

51-2099 Assemblers and Fabricators, All Other

All assemblers and fabricators not listed separately.

Illustrative Examples: Barrel Raiser; Automobile Assembler, Ex. engines; Doll Maker

51-3011 Bakers

Mix and bake ingredients according to recipes to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods. Include pastry chefs in restaurants and hotels with "Chefs and Head Cooks" (35-1011).

Illustrative Examples: Cake Maker; Head Baker; Pastry Finisher

51-3021 Butchers and Meat Cutters

Cut, trim, or prepare consumer-sized portions of meat

for use or sale in retail establishments.

Illustrative Examples: Carver; Meat Department Manager; Cleaver

51-3022 Meat, Poultry, and Fish Cutters and Trimmers

Use hand tools to perform routine cutting and trimming of meat, poultry, and fish.

Illustrative Examples: Calf Skinner; Eviscerator; Filleter

51-3023 Slaughterers and Meat Packers

Work in slaughtering, meat packing, or wholesale establishments performing precision functions involving the preparation of meat. Work may include specialized slaughtering tasks, cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats. Exclude "Meat, Poultry, and Fish Cutters and Trimmers" (51-3022) who perform routine, lower-skilled meat cutting.

Illustrative Examples: Hog Sticker; Shactor; Beef Splitter

51-3091 Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders

Operate or tend food or tobacco roasting, baking, or drying equipment, Inc. hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment.

Illustrative Examples: Coffee Roaster; Smokehouse Worker; Curing Room Worker

51-3092 Food Batchmakers

Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products. Include candy makers and cheese makers.

Illustrative Examples: Candy Maker; Honey Blender; Peanut Butter Maker

51-3093 Food Cooking Machine Operators and Tenders

Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products. Exclude "Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders" (51-3091).

Illustrative Examples: Doughnut Maker; Sausage Cooker; Potato Chip Fryer

51-3099 Food Processing Workers, All Other (OES code only)

51-4011 Computer-Controlled Machine Tool Operators, Metal and Plastic

Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.

Illustrative Examples: Numerical Control Machine Operator; Robot Operator

51-4012 Numerical Tool and Process Control Programmers

Develop programs to control machining or processing of parts by automatic machine tools, equipment, or systems.

Illustrative Examples: Tool Programmer; NC Programmer

51-4021 Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.

Illustrative Examples: Draw Bench Operator; Tube Drawer; Wire Drawing Setter

51-4022 Forging Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend forging machines to taper, shape, or form metal or plastic parts.

Illustrative Examples: Cold Header Operator; Swager Operator; Drop Hammer Operator

51-4023 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend machines to roll steel or plastic forming bends, beads, knurls, rolls, or plate or to flatten, temper, or reduce gauge of material.

Illustrative Examples: Forming Roll Operator; Rolling Mill Operator; Tubing Machine Operator

51-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.

Illustrative Examples: Perforator Operator; Crimping Machine Operator; Four Slide Machine Setter

51-4032 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.

Illustrative Examples: Drill Press Operator; Jewel Cupping Machine Operator; Reaming Press Operator

51-4033 Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic work pieces.

Illustrative Examples: Barrel Polisher; Jewel Bearing Facer; Metal Filer

51-4034 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock.

Illustrative Examples: Gear Cutter; Screw Machine Operator; Threading Machine Setter

51-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend milling or planing machines to mill, plane, shape, groove, or profile metal or plastic work pieces.

Illustrative Examples: Broaching Machine Operator; Profiler Operator; Scribing Machine Operator

51-4041 Machinists

Set up and operate a variety of machine tools to produce precision parts and instruments. Include precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures.

Illustrative Examples: Electrical Instrument Maker; Machine Fitter

51-4051 Metal-Refining Furnace Operators and Tenders

Operate or tend furnaces, such as gas, oil, coal, electric-arc or electric induction, open-hearth, or oxygen furnaces, to melt and refine metal before

casting or to produce specified types of steel. Exclude “Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic” (51-4191).

Illustrative Examples: Blast Furnace Blower; Bessemer Regulator; Smelter

51-4052 Pourers and Casters, Metal

Operate hand-controlled mechanisms to pour and regulate the flow of molten metal into molds to produce castings or ingots.

Illustrative Examples: Ingot Header; Ladle Operator; Steel Pourer

51-4061 Model Makers, Metal and Plastic

Set up and operate machines, such as lathes, milling and engraving machines, and jig borers to make working models of metal or plastic objects. Include template makers.

Illustrative Examples: Jig and Fixture Builder; Mandrel Maker; Mock Up Maker

51-4062 Patternmakers, Metal and Plastic

Lay out, machine, fit, and assemble castings and parts to metal or plastic foundry patterns, core boxes, or match plates.

Illustrative Examples: Pattern Fitter; Stencil Cutter

51-4071 Foundry Mold and Coremakers

Make or form wax or sand cores or molds used in the production of metal castings in foundries.

Illustrative Examples: Core Setter; Mold Closer; Dry Sand Molder

51-4072 Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermoplastic parts or products.

Illustrative Examples: Centrifugal Casting Machine Operator; Injection Molding Machine Setter; Core Moulder

51-4081 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend more than one type of cutting or forming machine tool or robot.

Illustrative Examples: Machine Tool Operator; Combination Machine Tool Setter; Metal and Plastic Transfer Machine Operator

51-4111 Tool and Die Makers

Analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures, gauges, and machinists' hand tools.

Illustrative Examples: Die Sinker; Die Finisher; Sawsmith

51-4121 Welders, Cutters, Solderers, and Brazers

Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Illustrative Examples: Acetylene Burner; Arc Welder; Blow Torch Operator

51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

Set up, operate, or tend welding, soldering, or brazing machines or robots that weld, braze, solder, or heat treat metal products, components, or assemblies. Include workers who operate laser cutters or laser-beam machines.

Illustrative Examples: Electron Beam Welder Setter; Laser-Beam Machine Operator; Ultrasonic Welding Machine Operator

51-4191 Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend heating equipment, such as heat-treating furnaces, flame-hardening machines, induction machines, soaking pits, or vacuum equipment to temper, harden, anneal, or heat-treat metal or plastic objects.

Illustrative Examples: Metal & Plastic Annealer; Metal & Plastic Temperer; Induction Machine Setter

51-4192 Lay-Out Workers, Metal and Plastic

Lay out reference points and dimensions on metal or plastic stock or workpieces, such as sheets, plates, tubes, structural shapes, castings, or machine parts, for further processing. Include shipfitters.

Illustrative Examples: Pattern Setter; Location and Measurement Technician Shipfitter

51-4193 Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic

Set up, operate, or tend plating or coating machines to coat metal or plastic products with chromium, zinc, copper, cadmium, nickel, or other metal to protect or

decorate surfaces. Include electrolytic processes.

Illustrative Examples: Anodizer; Electroplater; Galvanizer

51-4194 Tool Grinders, Filers, and Sharpeners

Perform precision smoothing, sharpening, polishing, or grinding of metal objects.

Illustrative Examples: Die Polisher; Precision Honer; Tool Maintenance Worker

51-4199 Metal Workers and Plastic Workers, All Other

All metalworkers and plastic workers not listed separately.

Illustrative Examples: Balancing Machine Operator; Film Casting Operator; Nail Making Machine Setter

51-5011 Bindery Workers

Set up or operate binding machines that produce books and other printed materials. Include hand bindery workers. Exclude "Bookbinders" (51-5012).

Illustrative Examples: Book Coverer; Stitching Machine Operator; Bookbinding Machine Operator

51-5012 Bookbinders

Perform highly skilled hand finishing operations, such as grooving and lettering to bind books.

Illustrative Examples: Book Finisher; Book Mender

51-5021 Job Printers

Set type according to copy; operate press to print job order; and read proof for errors and clarity of impression, and correct imperfections. Job printers are often found in small establishments where work combines several job skills.

Illustrative Examples: Job Press Operator; Apprentice Job Printer

51-5022 Prepress Technicians and Workers

Set up and prepare material for printing presses. Include prepress functions, such as compositing, typesetting, layout, paste-up, camera operating, scanning, film stripping, and photoengraving.

Illustrative Examples: Compositor; Lithographer; Photoengraving Etcher

51-5023 Printing Machine Operators

Set up or operate various types of printing machines, such as offset, letterset, intaglio, or gravure presses or

screen printers to produce print on paper or other materials.

Illustrative Examples: Bag Printer; Offset Press Operator; Lithoplate Maker

51-5099 Printing Workers, All Other (OES code only)

51-6011 Laundry and Dry-Cleaning Workers

Operate or tend washing or dry-cleaning machines to wash or dry-clean industrial or household articles, such as cloth garments, suede, leather, furs, blankets, draperies, fine linens, rugs, and carpets. Include spotters and dyers of these articles.

Illustrative Examples: Laundry Carpet Cleaner; Silk Spotter; Washing Machine Operator

51-6021 Pressers, Textile, Garment, and Related Materials

Press or shape articles by hand or machine.

Illustrative Examples: Clothes Ironer; Garment Steamer; Steam Operator

51-6031 Sewing Machine Operators

Operate or tend sewing machines to join, reinforce, decorate, or perform related sewing operations in the manufacture of garment or non-garment products.

Illustrative Examples: Blind Stitch Machine Operator; Loop Tacker; Hemmer

51-6041 Shoe and Leather Workers and Repairers

Construct, decorate, or repair leather and leather-like products, such as luggage, shoes, and saddles.

Illustrative Examples: Upper Cutter; Cobbler; Saddle Maker

51-6042 Shoe Machine Operators and Tenders

Operate or tend a variety of machines to join, decorate, reinforce, or finish shoes and shoe parts.

Illustrative Examples: Counter Maker; Lasting Machine Operator; Shoe Archer

51-6051 Sewers, Hand

Sew, join, reinforce, or finish, usually with needle and thread, a variety of manufactured items. Include weavers and stitchers. Exclude "Fabric Menders, Ex. Garment" (49-9093).

Illustrative Examples: Hand Stitcher; Hand Weaver; Hosiery Mender

51-6052 Tailors, Dressmakers, and Custom Sewers

Design, make, alter, repair, or fit garments.

Illustrative Examples: Coat Maker; Hand Finisher, Ex. Toys Shop Tailor

51-6061 Textile Bleaching and Dyeing Machine Operators and Tenders

Operate or tend machines to bleach, shrink, wash, dye, or finish textiles or synthetic or glass fibers.

Illustrative Examples: Bleach Range Operator; Rug Dyer; Skein Yarn Dyer

51-6062 Textile Cutting Machine Setters, Operators, and Tenders

Set up, operate, or tend machines that cut textiles.

Illustrative Examples: Canvas Cutter; Rag Shredder; Welt Trimming Machine Operator

51-6063 Textile Knitting and Weaving Machine Setters, Operators, and Tenders

Set up, operate, or tend machines that knit, loop, weave, or draw in textiles. Exclude "Sewing Machine Operators" (51-6031).

Illustrative Examples: Crochet Machine Operator; Ribbing Machine Operator; Looping Machine Operator

51-6064 Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Set up, operate, or tend machines that wind or twist textiles; or draw out and combine sliver, such as wool, hemp, or synthetic fibers. Include slubber machine and drawing frame operators.

Illustrative Examples: Beamer Operator; Bobbin Doffer; Frame Tender

51-6091 Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers

Set up, operate, or tend machines that extrude and form continuous filaments from synthetic materials, such as liquid polymer, rayon, and fiberglass.

Illustrative Examples: Fiber Machine Tender; Box Spinner; Synthetic Filament Spinner

51-6092 Fabric and Apparel Patternmakers

Draw and construct sets of precision master fabric

patterns or layouts. May also mark and cut fabrics and apparel.

Illustrative Examples: Pattern Grader; Shoe Patternmaker

51-6093 Upholsterers

Make, repair, or replace upholstery for household furniture or transportation vehicles.

Illustrative Examples: Car Seat Maker; Casket Coverer; Auto Top Mechanic

51-6099 Textile, Apparel, and Furnishings Workers, All Other

All textile, apparel, and furnishings workers not listed separately.

Illustrative Examples: Napper; Carding Machine Operator; Mercerizer

51-7011 Cabinetmakers and Bench Carpenters

Cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut, or shape lumber or to fabricate parts for wood products. Exclude "Woodworking Machine Setters, Operators, and Tenders" (51-7041 through 51-7042) who specialize in one or a limited number of machine phases.

Illustrative Examples: Marquetry Worker; Antique Furniture Repairer; Wood Machinist

51-7021 Furniture Finishers

Shape, finish, and refinish damaged, worn, or used furniture or new high-grade furniture to specified color or finish.

Illustrative Examples: Furniture Polisher; Refinisher; Wood Grainer

51-7031 Model Makers, Wood

Construct full-size and scale wooden precision models of products. Include wood jig builders and loft workers.

Illustrative Examples: Wood Jig Builder; Loft Worker

51-7032 Patternmakers, Wood

Plan, lay out, and construct wooden unit or sectional patterns used in forming sand molds for castings.

Illustrative Examples: Experimental Wood Mechanic; Wood Die Maker

51-7041 Sawing Machine Setters, Operators, and Tenders, Wood

Set up, operate, or tend wood sawing machines. Include head sawyers.

Illustrative Examples: Crozer Operator; Sawyer; Wood Cutter

51-7042 Woodworking Machine Setters, Operators, and Tenders, Ex. Sawing

Set up, operate, or tend woodworking machines, such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines.

Illustrative Examples: Frazer; Molding Sander

51-7099 Woodworkers, All Other

All woodworkers not listed separately.

Illustrative Examples: Wood Carver; Pole Framer; Veneer Taper

51-8011 Nuclear Power Reactor Operators

Control nuclear reactors.

Illustrative Examples: Nuclear Reactor Operator; Power Reactor Operator

51-8012 Power Distributors and Dispatchers

Coordinate, regulate, or distribute electricity or steam.

Illustrative Examples: Feeder Switchboard Operator; Electric and Gas Load Dispatcher; Substation Operator

51-8013 Power Plant Operators

Control, operate, or maintain machinery to generate electric power. Include auxiliary equipment operators. Exclude "Nuclear Power Reactor Operators" (51-8011).

Illustrative Examples: Hydroelectric Operator; Generator Operator; Power House Operator

51-8021 Stationary Engineers and Boiler Operators

Operate or maintain stationary engines, boilers, or other mechanical equipment to provide utilities for buildings or industrial processes. Operate equipment, such as steam engines, generators, motors, turbines, and steam boilers.

Illustrative Examples: Cooling System Operator; Low Pressure Firer; Steam Engineer

51-8031 Water and Liquid Waste Treatment Plant and System Operators

Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or liquid waste.

Illustrative Examples: Disposal Operator; Filtration Plant Operator; Sewage Plant Operator

51-8091 Chemical Plant and System Operators

Control or operate an entire chemical process or system of machines.

Illustrative Examples: Denitrator; Nitrogen Operator; Wash Operator

51-8092 Gas Plant Operators

Distribute or process gas for utility companies and others by controlling compressors to maintain specified pressures on main pipelines.

Illustrative Examples: Liquefaction Plant Operator; Pressure Dispatcher

51-8093 Petroleum Pump System Operators, Refinery Operators, and Gaugers

Control the operation of petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging or testing oil in storage tanks, or regulating the flow of oil into pipelines.

Illustrative Examples: Absorption Plant Operator; Gasoline Plant Operator; Oil Refiner

51-8099 Plant and System Operators, All Other

All plant and system operators not listed separately.

Illustrative Examples: Asphalt Plant Operator; Lime Filter Operator; Incinerator Operator

51-9011 Chemical Equipment Operators and Tenders

Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels. Exclude "Chemical Plant and System Operators" (51-8091).

Illustrative Examples: Acetylene Plant Operator; Acid Purifier; Caustic Purification Operator

51-9012 Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders

Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills.

These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product. Include dairy processing equipment operators. Exclude “Chemical Equipment Operators and Tenders” (51-9011).

Illustrative Examples: Brewmaster; Dairy Processing Equipment Operator; Distiller

51-9021 Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders

Set up, operate, or tend machines to crush, grind, or polish materials, such as coal, glass, grain, stone, food, or rubber.

Illustrative Examples: Beveling and Edging Machine Operator; Pulverizer Operator; Sand Blast Operator

51-9022 Grinding and Polishing Workers, Hand

Grind, sand, or polish, using hand tools or hand-held power tools, a variety of metal, wood, stone, clay, plastic, or glass objects. Include chippers, buffers, and finishers.

Illustrative Examples: Metal Sander; Gun Barrel Finisher; Hand Buffer

51-9023 Mixing and Blending Machine Setters, Operators, and Tenders

Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients. Exclude “Food Batchmakers” (51-3092).

Illustrative Examples: Batch Maker; Clay Mixer; Tumbler Tender

51-9031 Cutters and Trimmers, Hand

Use hand tools or hand-held power tools to cut and trim a variety of manufactured items, such as carpet, fabric, stone, glass, or rubber.

Illustrative Examples: Buttonhole Maker; Fur Trimmer; Thread Clipper

51-9032 Cutting and Slicing Machine Setters, Operators, and Tenders

Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material. Exclude “Woodworking Machine Setters, Operators, and Tenders” (51-7041 through 51-7042), “Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic” (51-4031), and “Textile Cutting Machine Setters, Operators, and Tenders”

(51-6062).

Illustrative Examples: Bias Machine Operator; Shear Operator; Slate Trimmer

51-9041 Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

Set up, operate, or tend machines, such as glass forming machines, plodder machines, and tuber machines, to shape and form products, such as glassware, food, rubber, soap, brick, tile, clay, wax, tobacco, or cosmetics. Exclude “Paper Goods Machine Setters, Operators, and Tenders” (51-9196) and “Shoe Machine Operators and Tenders” (51-6042).

Illustrative Examples: Briquette Maker; Cigarette Machine Operator; Rubber Laminating Machine Operator

51-9051 Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders

Operate or tend heating equipment other than basic metal, plastic, or food processing equipment. Includes activities, such as annealing glass, drying lumber, curing rubber, removing moisture from materials, or boiling soap.

Illustrative Examples: Brick Baker; Stoker; Tunnel Kiln Operator

51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers

Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision-measuring instruments and complex test equipment.

Illustrative Examples: Bearing Inspector; Quality Checker; Testing and Regulating Technician

51-9071 Jewelers and Precious Stone and Metal Workers

Design, fabricate, adjust, repair, or appraise jewelry, gold, silver, other precious metals, or gems. Include diamond polishers and gem cutters and persons who perform precision casting and modeling of molds, casting metal in molds, or setting precious and semi-precious stones for jewelry and related products.

Illustrative Examples: Diamond Expert; Gemologist; Goldsmith

51-9081 Dental Laboratory Technicians

Construct and repair full or partial dentures or dental appliances. Exclude “Dental Assistants” (31-9091).

Illustrative Examples: Ceramist; Crown and Bridge Technician; Orthodontic Technician

51-9082 Medical Appliance Technicians

Construct, fit, maintain, or repair medical supportive devices, such as braces, artificial limbs, joints, arch supports, and other surgical and medical appliances.

Illustrative Examples: Brace Maker; Orthotics Technician; Prosthetics Technician

51-9083 Ophthalmic Laboratory Technicians

Cut, grind, and polish eyeglasses, contact lenses, or other precision optical elements. Assemble and mount lenses into frames or process other optical elements. Include precision lens polishers or grinders, centerer-edgers, and lens mounters. Exclude “Opticians, Dispensing” (29-2081).

Illustrative Examples: Eyeglass Maker; Lens Grinder; Spectacle Truer

51-9111 Packaging and Filling Machine Operators and Tenders

Operate or tend machines to prepare industrial or consumer products for storage or shipment. Include cannery workers who pack food products.

Illustrative Examples: Bottle Caser; Wrapper Layer; Strapping Machine Operator

51-9121 Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

Set up, operate, or tend machines to coat or paint any of a wide variety of products Inc. food, glassware, cloth, ceramics, metal, plastic, paper, or wood, with lacquer, silver, copper, rubber, varnish, glaze, enamel, oil, or rust-proofing materials. Exclude “Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic” (51-4193) and “Painters, Transportation Equipment” (51-9122).

Illustrative Examples: Electrostatic Paint Operator; Silvering Applicator; Supercalender Operator

51-9122 Painters, Transportation Equipment

Operate or tend painting machines to paint surfaces of transportation equipment, such as automobiles, buses, trucks, trains, boats, and airplanes. Include painters in auto body repair facilities.

Illustrative Examples: Auto Painter; Rust Proofer

51-9123 Painting, Coating, and Decorating Workers

Paint, coat, or decorate articles, such as furniture, glass, plateware, pottery, jewelry, cakes, toys, books, or leather. Exclude “Artists and Related Workers” (27-1011 through 27-1019), “Designers” (27-1021 through 27-1029), “Photographic Process Workers” (51-9131), and “Etchers and Engravers” (51-9194).

Illustrative Examples: Stenciler; Candy Dipper; Mirror Silverer

51-9131 Photographic Process Workers

Perform precision work involved in photographic processing, such as editing photographic negatives and prints, using photo-mechanical, chemical, or computerized methods.

Illustrative Examples: Photographic Colorist; Darkroom Technician; Photo Finisher

51-9132 Photographic Processing Machine Operators

Operate photographic processing machines, such as photographic printing machines, film developing machines, and mounting presses.

Illustrative Examples: Film Printer; Film Processor; Reproduction Machine Loader

51-9141 Semiconductor Processors

Perform any or all of the following functions in the manufacture of electronic semiconductors: load semiconductor material into furnace; saw formed ingots into segments; load individual segment into crystal growing chamber and monitor controls; locate crystal axis in ingot using x-ray equipment and saw ingots into wafers; clean, polish, and load wafers into series of special purpose furnaces, chemical baths, and equipment used to form circuitry and change conductive properties.

Illustrative Examples: Circuit Recorder; Crystal Grower; Wafer Machine Operator

51-9191 Cementing and Gluing Machine Operators and Tenders

Operate or tend cementing and gluing machines to join items for further processing or to form a completed product. Processes include joining veneer sheets into plywood; gluing paper; joining rubber and rubberized fabric parts, plastic, simulated leather, or other materials. Exclude “Shoe Machine Operators and Tenders” (51-6042).

Illustrative Examples: Bonding Molder; Paper Sealer; Taper Operator

51-9192 Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders

Operate or tend machines to wash or clean products, such as barrels or kegs, glass items, tin plate, food, pulp, coal, plastic, or rubber, to remove impurities.

Illustrative Examples: Acid Dipper; Degreaser Operator; Pulp Bleacher

51-9193 Cooling and Freezing Equipment Operators and Tenders

Operate or tend equipment, such as cooling and freezing units, refrigerators, batch freezers, and freezing tunnels, to cool or freeze products, food, blood plasma, and chemicals.

Illustrative Examples: Chiller Tender; Ice Maker; Refrigerating Machine Operator

51-9194 Etchers and Engravers

Engrave or etch metal, wood, rubber, or other materials for identification or decorative purposes. Include such workers as etcher-circuit processors, pantograph engravers, and silk screen etchers. Include photoengravers with "Prepress Technicians and Workers" (51-5022).

Illustrative Examples: Embosser; Letterer; Siderographer

51-9195 Molders, Shapers, and Casters, Ex. Metal and Plastic

Mold, shape, form, cast, or carve products such as food products, figurines, tile, pipes, and candles consisting of clay, glass, plaster, concrete, stone, or combinations of materials.

Illustrative Examples: Cigar Roller; Glass Blower; Marble Finisher

51-9196 Paper Goods Machine Setters, Operators, and Tenders

Set up, operate, or tend paper goods machines that perform a variety of functions, such as converting, sawing, corrugating, banding, wrapping, boxing, stitching, forming, or sealing paper or paperboard sheets into products.

Illustrative Examples: Bag Machine Operator; Box Fabricator; Carton Forming Machine Operator

51-9197 Tire Builders

Operate machines to build tires from rubber components.

Illustrative Examples: Retreader; Tire Curer; Tube Builder

51-9198 Helpers –Production Workers

Help production workers by performing duties of lesser skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment. Exclude apprentice workers and report them with the appropriate production occupation (51-1011 through 51-9199).

Illustrative Examples: Welder's Assistant; Tailor's Aide; Millwright's Helper

51-9199 Production Workers, All Other

All production workers not listed separately.

Illustrative Examples: Barrel Header; Mop Maker

Transportation and Material Moving

53-1011 Aircraft Cargo Handling Supervisors

Direct ground crew in the loading, unloading, securing, and staging of aircraft cargo or baggage. Determine the quantity and orientation of cargo and compute aircraft center of gravity. May accompany aircraft as member of flight crew and monitor and handle cargo in flight, and assist and brief passengers on safety and emergency procedures. Include loadmasters.

Illustrative Examples: Loadmaster; Ramp Boss; Ground Crew Supervisor

53-1021 First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand

Supervise and coordinate the activities of helpers, laborers, or material movers.

Illustrative Examples: Cargo Supervisor; Yard Supervisor; Warehouse Supervisor

53-1031 First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators

Directly supervise and coordinate activities of transportation and material-moving machine and vehicle operators and helpers.

Illustrative Examples: Dockmaster; Gas Station Manager; Roadmaster

53-2011 Airline Pilots, Copilots, and Flight Engineers

Pilot and navigate the flight of multi-engine aircraft in regularly scheduled service for the transport of

passengers and cargo. Requires Federal Air Transport rating and certification in specific aircraft type used. Include aircraft instructors with similar certification.

Illustrative Examples: Airline Captain; First Officer; Flight Navigator

53-2012 Commercial Pilots

Pilot and navigate the flight of small fixed or rotary winged aircraft, primarily for the transport of cargo and passengers. Requires Commercial Rating. Include aircraft instructors with similar certification.

Illustrative Examples: Crop Duster; Helicopter Pilot; Test Pilot

53-2021 Air Traffic Controllers

Control air traffic on and within vicinity of airport and movement of air traffic between altitude sectors and control centers according to established procedures and policies. Authorize, regulate, and control commercial airline flights according to government or company regulations to expedite and ensure flight safety.

Illustrative Examples: Control Tower Operator; Flight Control Specialist; Flight Dispatcher

53-2022 Airfield Operations Specialists

Ensure the safe takeoff and landing of commercial and military aircraft. Duties include coordination between air-traffic control and maintenance personnel; dispatching; using airfield landing and navigational aids; implementing airfield safety procedures; monitoring and maintaining flight records; and applying knowledge of weather information.

Illustrative Examples: Airfield Manager; Flight Director; Flight Operations Coordinator

53-2099 Air Transportation Workers, All Other (OES code only)

53-3011 Ambulance Drivers and Attendants, Ex. Emergency Medical Technicians

Drive ambulance or assist ambulance driver in transporting sick, injured, or convalescent persons. Assist in lifting patients.

Illustrative Example: Patient Carrier

53-3021 Bus Drivers, Transit and Intercity

Drive bus or motor coach, Inc. regular route operations, charters, and private carriage. May assist passengers with baggage. May collect fares or tickets.

Illustrative Examples: Motor Coach Operator; Jitney Driver

53-3022 Bus Drivers, School

Transport students or special clients, such as the elderly or persons with disabilities. Ensure adherence to safety rules. May assist passengers in boarding or exiting.

53-3031 Driver/Sales Workers

Drive truck or other vehicle over established routes or within an established territory and sell goods, such as food products, Inc. restaurant take-out items, or pick up and deliver items, such as laundry. May also take orders and collect payments. Include newspaper delivery drivers. Exclude "Truck Drivers, Light or Delivery Services" (53-3033) and "Coin, Vending, and Amusement Machine Servicers and Repairers" (49-9091).

Illustrative Examples: Bakery Delivery Person; Milk Delivery Person; Bread Distributor

53-3032 Truck Drivers, Heavy and Tractor-Trailer

Drive a tractor-trailer combination or a truck with a capacity of at least 26,000 GVW, to transport and deliver goods, livestock, or materials in liquid, loose, or packaged form. May be required to unload truck. May require use of automated routing equipment. Requires commercial drivers' license.

Illustrative Examples: Auto Carrier Driver; Cement Truck Driver; Moving Van Driver

53-3033 Truck Drivers, Light or Delivery Services

Drive a truck or van with a capacity of under 26,000 GVW, primarily to deliver or pick up merchandise or to deliver packages within a specified area. May require use of automatic routing or location software. May load and unload truck. Exclude "Couriers and Messengers" (43-5021).

Illustrative Example: Parcel Post Truck Driver

53-3041 Taxi Drivers and Chauffeurs

Drive automobiles, vans, or limousines to transport passengers. May occasionally carry cargo. Include hearse drivers. Exclude "Ambulance Drivers and Attendants, Ex. Emergency Medical Technicians" (53-3011) and "Bus Drivers" (53-3021 through 53-3022).

Illustrative Examples: Cab Driver; Courtesy Van Driver; Limousine Driver

53-3099 Motor Vehicle Operators, All Other

All motor vehicle operators not listed separately.

Illustrative Examples: Motorcycle Delivery Driver; Assembly Line Driver; Street Cleaning Equipment Operator

53-4011 Locomotive Engineers

Drive electric, diesel-electric, steam, or gas-turbine-electric locomotives to transport passengers or freight. Interpret train orders, electronic or manual signals, and railroad rules and regulations.

Illustrative Examples: Diesel Engineer; Narrow Gauge Operator; Rail Car Operator

53-4012 Locomotive Firers

Monitor locomotive instruments and watch for dragging equipment, obstacles on rights-of-way, and train signals during run. Watch for and relay traffic signals from yard workers to yard engineer in railroad yard.

Illustrative Examples: Assistant Engineer; Railroad Firer

53-4013 Rail Yard Engineers, Dinkey Operators, and Hostlers

Drive switching or other locomotive or dinkey engines within railroad yard, industrial plant, quarry, construction project, or similar location.

Illustrative Examples: Car Mover; Larry Car Operator; Coal Tram Driver

53-4021 Railroad Brake, Signal, and Switch Operators

Operate railroad track switches. Couple or uncouple rolling stock to make up or break up trains. Signal engineers by hand or flagging. May inspect couplings, air hoses, journal boxes, and hand brakes.

Illustrative Examples: Car Hopper; Coupler; Switch Tender

53-4031 Railroad Conductors and Yardmasters

Conductors coordinate activities of train crew on passenger or freight train. Coordinate activities of switch-engine crew within yard of railroad, industrial plant, or similar location. Yardmasters coordinate activities of workers engaged in railroad traffic operations, such as the makeup or breakup of trains, yard switching, and review train schedules and switching orders.

Illustrative Examples: Car Dispatcher; Roadmaster; Yard Pilot

53-4041 Subway and Streetcar Operators

Operate subway or elevated suburban train with no separate locomotive, or electric-powered streetcar to transport passengers. May handle fares.

Illustrative Examples: Monorail Operator; Tram Operator; Trolley Operator

53-4099 Rail Transportation Workers, All Other

All rail transportation workers not listed separately.

Illustrative Examples: Car Retarder Operator; Ballast Regulator Operator

53-5011 Sailors and Marine Oilers

Stand watch to look for obstructions in path of vessel, measure water depth, turn wheel on bridge, or use emergency equipment as directed by captain, mate, or pilot. Break out, rig, overhaul, and store cargo-handling gear, stationary rigging, and running gear. Perform a variety of maintenance tasks to preserve the painted surface of the ship and to maintain line and ship equipment. Must hold government-issued certification and tankerman certification when working aboard liquid-carrying vessels. Include able seamen and ordinary seamen.

Illustrative Examples: Able Seaman; Deckhand

53-5021 Captains, Mates, and Pilots of Water Vessels

Command or supervise operations of ships and water vessels, such as tugboats and ferryboats, that travel into and out of harbors, estuaries, straits, and sounds and on rivers, lakes, bays, and oceans. Required to hold license issued by U.S. Coast Guard. Exclude "Motorboat Operators" (53-5022).

Illustrative Examples: Barge Captain; Deck Officer; Tugboat Operator

53-5022 Motorboat Operators

Operate small motor-driven boats to carry passengers and freight between ships, or ship to shore. May patrol harbors and beach areas. May assist in navigational activities.

Illustrative Examples: Launch Operator; Speedboat Operator

53-5031 Ship Engineers

Supervise and coordinate activities of crew engaged in operating and maintaining engines, boilers, deck

machinery, and electrical, sanitary, and refrigeration equipment aboard ship.

Illustrative Examples: Deck Engineer; Marine Engine Mechanic

53-5099 Water Transportation Workers, All Other (OES code only)

53-6011 Bridge and Lock Tenders

Operate and tend bridges, canal locks, and lighthouses to permit marine passage on inland waterways, near shores, and at danger points in waterway passages. May supervise such operations. Include drawbridge operators, lock tenders and operators, and slip bridge operators.

Illustrative Examples: Drawbridge Operator; Lighthouse Keeper; Lock Master

53-6021 Parking Lot Attendants

Park automobiles or issue tickets for customers in a parking lot or garage. May collect fee.

Illustrative Examples: Car Hop; Car Runner; Valet Parker

53-6031 Service Station Attendants

Service automobiles, buses, trucks, boats, and other automotive or marine vehicles with fuel, lubricants, and accessories. Collect payment for services and supplies. May lubricate vehicle, change motor oil, install antifreeze, or replace lights or other accessories, such as windshield wiper blades or fan belts. May repair or replace tires.

Illustrative Examples: Filling Station Attendant; Gas and Oil Servicer; Pump Attendant

53-6041 Traffic Technicians

Conduct field studies to determine traffic volume, speed, effectiveness of signals, adequacy of lighting, and other factors influencing traffic conditions, under direction of traffic engineer.

Illustrative Example: Traffic Analyst

53-6051 Transportation Inspectors

Inspect equipment or goods in connection with the safe transport of cargo or people. Include rail transport inspectors, such as freight inspectors, car inspectors, rail inspectors, and other non-precision inspectors of other types of transportation vehicles.

Illustrative Examples: Airplane Inspector; Motor Vehicle Examiner; Safety Agent

53-6099 Transportation Workers, All Other

All transportation workers not listed separately.

Illustrative Example: Rickshaw Driver

53-7011 Conveyor Operators and Tenders

Control or tend conveyors or conveyor systems that move materials or products to and from stockpiles, processing stations, departments, or vehicles. May control speed and routing of materials or products.

Illustrative Examples: Belt Tender; Grain Elevator Operator

53-7021 Crane and Tower Operators

Operate mechanical boom and cable or tower and cable equipment to lift and move materials, machines, or products in many directions. Exclude "Excavating and Loading Machine and Dragline Operators" (53-7032).

Illustrative Examples: Boomsling Operator; Cherry Picker Operator; Scrap Drop Operator

53-7031 Dredge Operators

Operate dredge to remove sand, gravel, or other materials from lakes, rivers, or streams; and to excavate and maintain navigable channels in waterways.

Illustrative Example: Dredger

53-7032 Excavating and Loading Machine and Dragline Operators

Operate or tend machinery equipped with scoops, shovels, or buckets, to excavate and load loose materials. Exclude "Dredge Operators" (53-7031).

Illustrative Examples: Back Hoe Operator; Payloader Operator; Shovel Operator

53-7033 Loading Machine Operators, Underground Mining

Operate underground loading machine to load coal, ore, or rock into shuttle or mine car or onto conveyors. Loading equipment may include power shovels, hoisting engines equipped with cable-drawn scraper or scoop, or machines equipped with gathering arms and conveyor.

Illustrative Example: Coke Loader

53-7041 Hoist and Winch Operators

Operate or tend hoists or winches to lift and pull loads using power-operated cable equipment. Exclude "Crane and Tower Operators" (53-7021).

Illustrative Examples: Derrick Operator; Hydraulic Boom Operator; Well Puller

53-7051 Industrial Truck and Tractor Operators

Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location. Exclude “Logging Equipment Operators” (45-4022).

Illustrative Examples: Fork Lift Driver; Skidder Operator; Stacker Operator

53-7061 Cleaners of Vehicles and Equipment

Wash or otherwise clean vehicles, machinery, and other equipment. Use such materials as water, cleaning agents, brushes, cloths, and hoses. Exclude “Janitors and Cleaners, Ex. Maids and Housekeeping Cleaners” (37-2011).

Illustrative Examples: Barrel Washer; Auto Detailer; Machine Cleaner

53-7062 Laborers and Freight, Stock, and Material Movers, Hand

Manually move freight, stock, or other materials or perform other unskilled general labor. Include all unskilled manual laborers not elsewhere classified. Exclude “Material Moving Workers” (53-7011 through 53-7199) who use power equipment. Exclude “Construction Laborers” (47-2061) and “Construction Trades Helpers” (47-3011 through 47-3019).

Illustrative Examples: Cargo Handler; Stevedore; Truck Loader and Unloader

53-7063 Machine Feeders and Offbearers

Feed materials into or remove materials from machines or equipment that is automatic or tended by other workers.

Illustrative Examples: Hopper Filler; Board Catcher; Doffer

53-7064 Packers and Packagers, Hand

Pack or package by hand a wide variety of products and materials.

Illustrative Examples: Bagger; Boxer; Gift Wrapper

53-7071 Gas Compressor and Gas Pumping Station Operators

Operate steam, gas, electric motor, or internal combustion engine driven compressors. Transmit, compress, or recover gases, such as butane, nitrogen, hydrogen, and natural gas.

Illustrative Examples: Gas Booster Engineer; Gas Transfer Operator

53-7072 Pump Operators, Ex. Wellhead Pumps

Tend, control, or operate power-driven, stationary, or portable pumps and manifold systems to transfer gases, oil, other liquids, slurries, or powdered materials to and from various vessels and processes.

Illustrative Examples: Brewery Pumper; Main-Line Station Engineer; Oil Pumper

53-7073 Wellhead Pumps

Operate power pumps and auxiliary equipment to produce flow of oil or gas from wells in oil field.

Illustrative Example: Oil Well Service Operator

53-7081 Refuse and Recyclable Material Collectors

Collect and dump refuse or recyclable materials from containers into truck. May drive truck.

Illustrative Examples: Garbage Collector; Scrap Metal Collector; Trash Collector

53-7111 Shuttle Car Operators

Operate diesel or electric-powered shuttle car in underground mine to transport materials from working face to mine cars or conveyor.

Illustrative Examples: Car Dumper; Cart Driver; Shuttle Buggy Operator

53-7121 Tank Car, Truck, and Ship Loaders

Load and unload chemicals and bulk solids, such as coal, sand, and grain into or from tank cars, trucks, or ships using material moving equipment. May perform a variety of other tasks relating to shipment of products. May gauge or sample shipping tanks and test them for leaks.

Illustrative Examples: Coal Dumping Equipment Operator; Loader Operator; Spout Tender

53-7199 Material Moving Workers, All Other

All material moving workers not listed separately.

Illustrative Examples: Elevator Operator; Hand Trucker; Longshore Equipment Operator

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